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<211> 3978

<212> DNA

<213> Homo sapiens

<220>

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Asp Gln Val Phe Leu Asp Leu Gln Ser Leu Glu Lys His Met Leu Ser
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His Thr Glu Glu Arg Glu Tyr Lys Cys Asp Gln Cys Pro Lys Ala Phe
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<210> 83

<211> 1042

<212> PRT

<213> Homo sapiens

<400> 83

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35 40 45
Ser Ala Phe Ser Met Val Glu Glu Asp Phe Gln Gln Lys Leu Glu Ser
50 55 60
Glu Asn Asp Leu Gln Glu Ile His Thr Ile Gln Glu Cys Lys Glu Cys
65 70 75 80
Asp Gln Val Phe Pro Asp Leu Gln Ser Leu Glu Lys His Met Leu Ser
85 90 95
His Thr Glu Glu Arg Glu Tyr Lys Cys Asp Gln Cys Pro Lys Ala Phe
100 105 110
Asn Trp Lys Ser Asn Leu Ile Arg His Gln Met Ser His Asp Ser Gly
115 120 125
Lys His Tyr Glu Cys Glu Asn Cys Ala Lys Val Phe Thr Asp Pro Ser
130 135 140
Asn Leu Gln Arg His Ile Arg Ser Gln His Val Gly Ala Arg Ala His
145 150 155 160
Ala Cys Pro Glu Cys Gly Lys Thr Phe Ala Thr Ser Ser Gly Leu Lys
165 170 175
Gln His Lys His Ile His Ser Ser Val Lys Pro Phe Ile Cys Glu Val
180 185 190

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Cys His Lys Ser Tyr Thr Gln Phe Ser Asn Leu Cys Arg His Lys Arg
 195 200 205
 Met His Ala Asp Cys Arg Thr Gln Ile Lys Cys Lys Asp Cys Gly Gln
 210 215 220
 Met Phe Ser Thr Thr Ser Ser Leu Asn Lys His Arg Arg Phe Cys Glu
 225 230 235 240
 Gly Lys Asn His Phe Ala Ala Gly Gly Phe Phe Gly Gln Gly Ile Ser
 245 250 255
 Leu Pro Gly Thr Pro Ala Met Asp Lys Thr Ser Met Val Asn Met Ser
 260 265 270
 His Ala Asn Pro Gly Leu Ala Asp Tyr Phe Gly Ala Asn Arg His Pro
 275 280 285
 Ala Gly Leu Thr Phe Pro Thr Ala Pro Gly Phe Ser Phe Ser Phe Pro
 290 295 300
 Gly Leu Phe Pro Ser Gly Leu Tyr His Arg Pro Pro Leu Ile Pro Ala
 305 310 315 320
 Ser Ser Pro Val Lys Gly Leu Ser Ser Thr Thr Gln Thr Asn Lys Ser
 325 330 335
 Gln Ser Pro Leu Met Thr His Pro Gln Ile Leu Pro Ala Thr Gln Asp
 340 345 350
 Ile Leu Lys Ala Leu Ser Lys His Pro Ser Val Gly Asp Asn Lys Pro
 355 360 365
 Val Glu Leu Gln Pro Glu Arg Ser Ser Glu Glu Arg Pro Phe Glu Lys
 370 375 380
 Ile Ser Asp Gln Ser Glu Ser Ser Asp Leu Asp Asp Val Ser Thr Pro
 385 390 395 400
 Ser Gly Ser Asp Leu Glu Thr Thr Ser Gly Ser Asp Leu Glu Ser Asp
 405 410 415
 Ile Glu Ser Asp Lys Glu Lys Phe Lys Glu Asn Gly Lys Met Phe Lys
 420 425 430
 Asp Lys Val Ser Pro Leu Gln Asn Leu Ala Ser Ile Asn Asn Lys Lys
 435 440 445
 Glu Tyr Ser Asn His Ser Ile Phe Ser Pro Ser Leu Glu Glu Thr
 450 455 460
 Ala Val Ser Gly Ala Val Asn Asp Ser Ile Lys Ala Ile Ala Ser Ile
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 Ala Glu Lys Tyr Phe Gly Ser Thr Gly Leu Val Gly Leu Gln Asp Lys
 485 490 495
 Lys Val Gly Ala Leu Pro Tyr Pro Ser Met Phe Pro Leu Pro Phe Phe
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 Pro Ala Phe Ser Gln Ser Met Tyr Pro Phe Pro Asp Arg Asp Leu Arg
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 595 600 605
 Phe Gly Gly Lys Lys Gly Ser Asn Val Glu Ser Arg Pro Ala Ser Asp
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 Gly Ser Leu Gln His Ala Arg Pro Thr Pro Phe Phe Met Asp Pro Ile
 625 630 635 640
 Tyr Arg Val Glu Lys Arg Lys Leu Thr Asp Pro Leu Glu Ala Leu Lys
 645 650 655

Glu Lys Tyr Leu Arg Pro Ser Pro Gly Phe Leu Phe His Pro Gln Met
 660 665 670
 Ser Ala Ile Glu Asn Met Ala Glu Lys Leu Glu Ser Phe Ser Ala Leu
 675 680 685
 Lys Pro Glu Ala Ser Glu Leu Leu Gln Ser Val Pro Ser Met Phe Asn
 690 695 700
 Phe Arg Ala Pro Pro Asn Ala Leu Pro Glu Asn Leu Leu Arg Lys Gly
 705 710 715 720
 Lys Glu Arg Tyr Thr Cys Arg Tyr Cys Gly Lys Ile Phe Pro Arg Ser
 725 730 735
 Ala Asn Leu Thr Arg His Leu Arg Thr His Thr Gly Glu Gln Pro Tyr
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 Arg Cys Lys Tyr Cys Asp Arg Ser Phe Ser Ile Ser Ser Asn Leu Gln
 755 760 765
 Arg His Val Arg Asn Ile His Asn Lys Glu Lys Pro Phe Lys Cys His
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 Leu Cys Asp Arg Cys Phe Gly Gln Gln Thr Asn Leu Asp Arg His Leu
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 Lys Lys His Glu Asn Gly Asn Met Ser Gly Thr Ala Thr Ser Ser Pro
 805 810 815
 His Ser Glu Leu Glu Ser Thr Gly Ala Ile Leu Asp Asp Lys Glu Asp
 820 825 830
 Ala Tyr Phe Thr Glu Ile Arg Asn Phe Ile Gly Asn Ser Asn His Gly
 835 840 845
 Ser Gln Ser Pro Arg Asn Val Glu Glu Arg Met Asn Gly Ser His Phe
 850 855 860
 Lys Asp Glu Lys Ala Leu Val Thr Ser Gln Asn Ser Asp Leu Leu Asp
 865 870 875 880
 Asp Glu Glu Val Glu Asp Glu Val Leu Leu Asp Glu Glu Asp Glu Asp
 885 890 895
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 965 970 975
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 995 1000 1005
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<210> 84

<211> 4039

<212> DNA

<213> Homo sapiens

<400> 84

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<210> 85

<211> 595

<212> PRT

<213> Homo sapiens

<400> 85

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Arg Leu Val Leu Asn Tyr Asp Pro Gly Asp Pro Lys Ala Phe Thr Glu
35      40      45
Ile Asn Arg Leu Leu Pro Tyr Phe Arg Gln Ser Leu Ser Cys Cys Val
50      55      60
Cys Gly His Leu Leu Gln Asp Pro Ile Ala Pro Thr Asn Ser Thr Cys
65      70      75      80
Gln His Tyr Val Cys Lys Thr Cys Lys Gly Lys Lys Met Met Met Lys
85      90      95
Pro Ser Cys Ser Trp Cys Lys Asp Tyr Glu Gln Phe Glu Glu Asn Lys
100     105     110
Gln Leu Ser Ile Leu Val Asn Cys Tyr Lys Lys Leu Cys Glu Tyr Ile
115     120     125
Thr Gln Thr Thr Leu Ala Arg Asp Ile Ile Glu Ala Val Asp Cys Ser
130     135     140
Ser Asp Ile Leu Ala Leu Leu Asn Asp Gly Ser Leu Phe Cys Glu Glu
145     150     155     160
Thr Glu Lys Pro Ser Asp Ser Ser Phe Thr Leu Cys Leu Thr His Ser
165     170     175
Pro Leu Pro Ser Thr Ser Glu Pro Thr Thr Asp Pro Gln Ala Ser Leu
180     185     190
Ser Pro Met Ser Glu Ser Thr Leu Ser Ile Ala Ile Gly Ser Ser Val
195     200     205
Ile Asn Gly Leu Pro Thr Tyr Asn Gly Leu Ser Ile Asp Arg Phe Gly
210     215     220
Ile Asn Ile Pro Ser Pro Glu His Ser Asn Thr Thr Ile Asp Val Cys Asn
225     230     235     240
Thr Val Asp Ile Lys Thr Glu Asp Leu Ser Asp Ser Leu Pro Pro Val
245     250     255
Cys Asp Thr Val Ala Thr Asp Leu Cys Ser Thr Gly Ile Asp Ile Cys
260     265     270
Ser Phe Ser Glu Asp Ile Lys Pro Gly Asp Ser Leu Leu Leu Ser Val
275     280     285
Glu Glu Val Leu Arg Ser Leu Glu Thr Val Ser Asn Thr Glu Val Cys
290     295     300
Cys Pro Asn Leu Gln Pro Asn Leu Glu Ala Thr Val Ser Asn Gly Pro
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Phe Leu Gln Leu Ser Ser Gln Ser Leu Ser His Asn Val Phe Met Ser

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[illegible]

<210> 86

<211> 1385

<212> DNA

<213> Homo sapiens

<400> 86

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103

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<210> 87
<211> 252
<212> PRT
<213> Homo sapiens

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35 40 45
Asp Phe Tyr Val His Thr Val Met Thr Cys Tyr Phe Ser Leu Phe Gly
50 55 60
Ile Asp Asn Met Ala Pro Ser Pro Gly His Ile Leu Arg Val Tyr Gly
65 70 75 80
Gly Val Leu Pro Trp Ser Val Ala Leu Asp Trp Leu Thr Glu Lys Pro
85 90 95
Glu Leu Phe Gln Leu Ala Leu Lys Ala Phe Arg Tyr Thr Leu Lys Leu
100 105 110
Met Ile Asp Lys Ala Ser Leu Gly Pro Ile Glu Asp Phe Arg Glu Leu
115 120 125
Ile Lys Tyr Leu Glu Glu Tyr Glu Arg Asp Trp Tyr Ile Gly Leu Val
130 135 140
Ser Asp Glu Lys Trp Lys Glu Ala Ile Leu Gln Glu Lys Pro Tyr Leu
145 150 155 160
Phe Ser Leu Gly Tyr Asp Ser Asn Met Gly Ile Tyr Thr Gly Arg Val
165 170 175
Leu Ser Leu Gln Glu Leu Leu Ile Gln Val Gly Lys Leu Asn Pro Glu
180 185 190
Ala Val Arg Gly Gln Trp Ala Asn Leu Ser Trp Glu Leu Leu Tyr Ala
195 200 205
Thr Asn Asp Asp Glu Glu Arg Tyr Ser Ile Gln Ala His Pro Leu Leu
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<210> 88
<211> 4660
<212> DNA
<213> Homo sapiens

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<212> DNA

<213> Homo sapiens

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<210> 93

<211> 301

<212> PRT

<213> Homo sapiens

<400> 93

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Gly Glu Glu Glu Arg Ala His Gln Ser Ile Leu Thr Gln Arg Val His
35 40 45
Trp Ala Glu Ala Leu Gln Lys Leu Asp Thr Ile Arg Thr Gly Leu Val
50 55 60
Gly Met Leu Thr His Leu Asp Asp Leu Gln Leu Ile Gln Lys Glu Gln
65 70 75 80
Glu Ile Phe Glu Arg Thr Glu Glu Ala Glu Gly Ile Leu Asp Pro Gln
85 90 95
Glu Ser Glu Met Leu Asn Phe Asn Glu Lys Cys Thr Arg Ser Pro Leu
100 105 110
Leu Thr Gln Leu Trp Ala Thr Ala Val Leu Gly Ser Leu Ser Gly Thr
115 120 125
Glu Asp Ile Arg Ile Asp Glu Arg Thr Val Ser Pro Phe Leu Gln Leu
130 135 140
Ser Asp Asp Arg Lys Thr Leu Thr Phe Ser Thr Lys Lys Ser Lys Ala
145 150 155 160
Cys Ala Asp Gly Pro Glu Arg Phe Asp His Trp Pro Asn Ala Leu Ala
165 170 175
Ala Thr Ser Phe Gln Asn Gly Leu His Ala Trp Met Val Asn Val Gln
180 185 190
Asn Ser Cys Ala Tyr Lys Val Gly Val Ala Ser Gly His Leu Pro Arg
195 200 205
Lys Gly Ser Gly Ser Asp Cys Arg Leu Gly His Asn Ala Phe Ser Trp
210 215 220
Val Phe Ser Arg Tyr Asp Gln Glu Phe Arg Phe Ser His Asn Gly Gln
225 230 235 240

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111

His	Glu	Pro	Leu	Gly	Leu	Leu	Arg	Gly	Pro	Ala	Gln	Leu	Gly	Val	Val
				245				250					255		
Leu	Asp	Leu	Gln	Val	Gln	Glu	Leu	Leu	Phe	Tyr	Glu	Pro	Ala	Ser	Gly
			260					265					270		
Ile	Val	Leu	Cys	Ala	His	His	Val	Ser	Phe	Pro	Gly	Pro	Leu	Phe	Pro
			275				280					285			
Val	Phe	Ala	Val	Ala	Asp	Gln	Thr	Ile	Ser	Ile	Val	Arg			
			290			295					300				

<210> 94

<211> 2317

<212> DNA

<213> Homo sapiens

<400> 94

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<210> 95

<211> 626

<212> PRT

<213> Homo sapiens

<400> 95

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 35          40          45
Leu Gly Glu Pro Glu Gly Ser Gly Leu Pro Pro Gly Pro Val Leu Glu
 50          55          60
Ala Arg Tyr Val Ala Arg Leu Ser Ala Ala Ala Val Leu Tyr Leu Ser
 65          70          75          80
Asn Pro Glu Gly Thr Cys Glu Asp Ala Arg Ala Gly Leu Trp Ala Ser
 85          90          95
His Ala Asp His Leu Leu Ala Leu Leu Glu Ser Pro Lys Ala Leu Thr
100          105          110
Pro Gly Leu Ser Trp Leu Leu Gln Arg Met Gln Ala Arg Ala Ala Gly
115          120          125
Gln Thr Pro Lys Thr Ala Cys Val Asp Ile Pro Gln Leu Leu Glu Glu
130          135          140
Ala Val Gly Ala Gly Ala Pro Gly Ser Ala Gly Gly Val Leu Ala Ala
145          150          155          160
Leu Leu Asp His Val Arg Ser Gly Ser Cys Phe His Ala Leu Pro Ser
165          170          175
Pro Gln Tyr Phe Val Asp Phe Val Phe Gln Gln His Ser Ser Glu Val
180          185          190
Pro Met Thr Leu Ala Glu Leu Ser Ala Leu Met Gln Arg Leu Gly Val
195          200          205
Gly Arg Glu Ala His Ser Asp His Ser His Arg His Arg Gly Ala Ser
210          215          220
Ser Arg Asp Pro Val Pro Leu Ile Ser Ser Ser Asn Ser Ser Ser Val
225          230          235          240
Trp Asp Thr Val Cys Leu Ser Ala Arg Asp Val Met Ala Ala Tyr Gly
245          250          255
Leu Ser Glu Gln Ala Gly Val Thr Pro Glu Ala Trp Ala Gln Leu Ser
260          265          270
Pro Ala Leu Leu Gln Gln Gln Leu Ser Gly Ala Tyr Thr Ser Gln Ser
275          280          285
Arg Pro Pro Val Gln Asp Gln Leu Ser Gln Ser Glu Arg Tyr Leu Tyr
290          295          300
Gly Ser Leu Ala Thr Leu Leu Ile Cys Leu Cys Ala Val Phe Gly Leu
305          310          315          320
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325          330          335
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355          360          365
Gly Leu Ser Pro Gln Pro Thr Trp Arg Leu Leu Ala Met Leu Ala Gly
370          375          380
Leu Tyr Ala Phe Phe Leu Phe Glu Asn Leu Phe Asn Leu Leu Leu Pro
385          390          395          400
Arg Asp Pro Glu Asp Leu Glu Asp Gly Pro Cys Gly His Ser Ser His
405          410          415
Ser His Gly Gly His Ser His Gly Val Ser Leu Gln Leu Ala Pro Ser
420          425          430

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Glu Leu Arg Gln Pro Lys Pro Pro His Glu Gly Ser Arg Ala Asp Leu
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 Val Ala Glu Glu Ser Pro Glu Leu Leu Asn Pro Glu Pro Arg Arg Leu
 450 455 460
 Ser Pro Glu Leu Arg Leu Leu Pro Tyr Met Ile Thr Leu Gly Asp Ala
 465 470 475 480
 Val His Asn Phe Ala Asp Gly Leu Ala Val Gly Ala Ala Phe Ala Ser
 485 490 495
 Ser Trp Lys Thr Gly Leu Ala Thr Ser Leu Ala Val Phe Cys His Glu
 500 505 510
 Leu Pro His Glu Leu Gly Asp Phe Ala Ala Leu Leu His Ala Gly Leu
 515 520 525
 Ser Val Arg Gln Ala Leu Leu Leu Asn Leu Ala Ser Ala Leu Thr Ala
 530 535 540
 Phe Ala Gly Leu Thr Trp His Ser Arg Leu Glu Ser Ala Arg Arg Ala
 545 550 555 560
 Arg Pro Gly Ser Trp Gln Trp Pro Pro Ala Cys Ser Leu Arg Ser Thr
 565 570 575
 Leu Arg His Ala Pro Gly Asp Val Glu Ser Thr Gly Pro Ala Ala Pro
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 Gly Ser Ser Ser Cys Cys Thr Thr Trp Ala Cys Trp Ala Ala Gly Pro
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<210> 96

<211> 2761

<212> DNA

<213> Homo sapiens

<400> 96

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<210> 97

<211> 422

<212> PRT

<213> Homo sapiens

<400> 97

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Ala Thr Leu Ser Lys Val Glu Gly Thr Asp Val Thr Gly Ile Glu Glu
50 55 60
Val Val Ile Pro Lys Lys Lys Thr Trp Asp Lys Val Ala Val Leu Gln
65 70 75 80
Ala Leu Ala Ser Thr Val Asn Arg Asp Thr Thr Ala Val Pro Tyr Val
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Phe Gln Asp Asp Pro Tyr Leu Met Pro Ala Ser Ser Leu Glu Ser Arg
100 105 110
Ser Phe Leu Leu Ala Lys Lys Ser Gly Glu Asn Val Ala Lys Phe Ile
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Ile Asn Ser Tyr Pro Lys Tyr Phe Gln Lys Asp Ile Ala Glu Pro His
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145 150 155 160
Ser Glu Ala Ala Leu Lys Glu Arg Ile Glu Leu Arg Lys Val Lys Ala
165 170 175
Ser Val Asp Met Phe Asp Gln Leu Leu Gln Ala Gly Thr Thr Val Ser
180 185 190
Leu Glu Thr Thr Asn Ser Leu Leu Asp Leu Leu Cys Tyr Tyr Gly Asp
195 200 205
Gln Glu Pro Ser Thr Asp Tyr His Phe Gln Gln Thr Gly Gln Ser Glu
210 215 220

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 Ser Leu Met Pro Glu Lys Asn Glu His Ser Tyr Cys Thr Met Ile Arg
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 Gly Met Val Lys His Arg Ala Tyr Glu Gln Ala Leu Asn Leu Tyr Thr
 275 280 285
 Glu Leu Leu Asn Asn Arg Leu His Ala Asp Val Tyr Thr Phe Asn Ala
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 Leu Ile Glu Ala Thr Val Cys Ala Ile Asn Glu Lys Phe Glu Glu Lys
 305 310 315 320
 Trp Ser Lys Ile Leu Glu Leu Leu Arg His Met Val Ala Gln Lys Val
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<211> 2757

<212> DNA

<213> Homo sapiens

<400> 98

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<210> 99
 <211> 697
 <212> PRT
 <213> Homo sapiens

<400> 99
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 35 40 45
 Ala Thr Leu Ser Lys Val Glu Gly Thr Asp Val Thr Gly Ile Glu Glu
 50 55 60
 Val Val Ile Pro Lys Lys Lys Thr Trp Asp Lys Val Ala Val Leu Gln
 65 70 75 80
 Ala Leu Ala Ser Thr Val Asn Arg Asp Thr Thr Ala Val Pro Tyr Val
 85 90 95
 Phe Gln Asp Asp Pro Tyr Leu Met Pro Ala Ser Ser Leu Glu Ser Arg
 100 105 110
 Ser Phe Leu Leu Ala Lys Lys Ser Gly Glu Asn Val Ala Lys Phe Ile
 115 120 125
 Ile Asn Ser Tyr Pro Lys Tyr Phe Gln Lys Asp Ile Ala Glu Pro His
 130 135 140
 Ile Pro Cys Leu Met Pro Glu Tyr Phe Glu Pro Gln Ile Lys Asp Ile
 145 150 155 160
 Ser Glu Ala Ala Leu Lys Glu Arg Ile Glu Leu Arg Lys Val Lys Ala
 165 170 175
 Ser Val Asp Met Phe Asp Gln Leu Leu Gln Ala Gly Thr Thr Val Ser
 180 185 190
 Leu Glu Thr Thr Asn Ser Leu Leu Asp Leu Leu Cys Tyr Tyr Gly Asp
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690

695

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 <211> 1940
 <212> DNA
 <213> Homo sapiens

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<210> 101
 <211> 280
 <212> PRT
 <213> Homo sapiens

<400> 101
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 Gly Asp Asn Trp Lys Phe Ile Gly Pro Asp Gln His Arg Asn Phe Tyr
 35 40 45
 Tyr Ser Lys Phe Phe Asp Leu Ile Cys Leu Met Glu Gln Ile Asp Val
 50 55 60
 Thr Leu Lys Trp Tyr Glu Asp Leu Ile Pro Ser Ala Tyr Phe Pro His

119

65		70		75		80									
Ser	Gln	Thr	Met	Ile	His	Leu	Leu	Gln	Ala	Leu	Asp	Val	Ala	Asn	Arg
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Leu	Glu	Val	Ile	Pro	Lys	Ile	Trp	Lys	Asp	Ser	Lys	Glu	Tyr	Gly	His
			100					105						110	
Thr	Phe	Arg	Ser	Asp	Leu	Arg	Glu	Glu	Ile	Leu	Met	Leu	Met	Ala	Arg
			115					120					125		
Asp	Lys	His	Pro	Pro	Glu	Leu	Gln	Val	Ala	Phe	Ala	Asp	Cys	Ala	Ala
			130				135					140			
Asp	Ile	Lys	Ser	Ala	Tyr	Glu	Ser	Gln	Pro	Ile	Arg	Gln	Thr	Ala	Gln
			145			150				155					160
Asp	Trp	Pro	Ala	Thr	Ser	Leu	Asn	Cys	Ile	Ala	Ile	Leu	Phe	Leu	Arg
				165					170					175	
Ala	Gly	Arg	Thr	Gln	Glu	Ala	Trp	Lys	Met	Leu	Gly	Leu	Phe	Arg	Lys
			180					185					190		
His	Asn	Lys	Ile	Pro	Arg	Ser	Glu	Leu	Leu	Asn	Glu	Leu	Met	Asp	Ser
			195				200					205			
Ala	Lys	Val	Ser	Asn	Ser	Pro	Ser	Gln	Ala	Ile	Glu	Val	Val	Glu	Leu
			210			215					220				
Ala	Ser	Ala	Phe	Ser	Leu	Pro	Ile	Cys	Glu	Gly	Leu	Thr	Gln	Arg	Val
			225			230				235					240
Met	Ser	Asp	Phe	Ala	Ile	Asn	Gln	Glu	Gln	Lys	Glu	Ala	Leu	Ser	Asn
				245					250					255	
Leu	Thr	Ala	Leu	Thr	Ser	Asp	Ser	Asp	Thr	Asp	Ser	Ser	Ser	Asp	Ser
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<210> 102

<211> 1853

<212> DNA

<213> Homo sapiens

<400> 102

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<210> 103

<211> 414

<212> PRT

<213> Homo sapiens

<400> 103

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35 40 45
Pro Ala Asn Ser Gly Ala Pro Ala Gly Ala Ala Gly Arg Ala Lys Gly
50 55 60
Glu Ser Arg Ile Arg Arg Pro Met Asn Ala Phe Met Val Trp Ala Lys
65 70 75 80
Asp Glu Arg Lys Arg Leu Ala Gln Gln Asn Pro Asp Leu His Asn Ala
85 90 95
Glu Leu Ser Lys Met Leu Gly Lys Ser Trp Lys Ala Leu Thr Leu Ala
100 105 110
Glu Lys Arg Pro Phe Val Glu Glu Ala Glu Arg Leu Arg Val Gln His
115 120 125
Met Gln Asp His Pro Asn Tyr Lys Tyr Arg Pro Arg Arg Arg Lys Gln
130 135 140
Val Lys Arg Leu Lys Arg Val Glu Gly Gly Phe Leu His Gly Leu Ala
145 150 155 160
Glu Pro Gln Ala Ala Ala Leu Gly Pro Glu Gly Gly Arg Val Ala Met
165 170 175
Asp Gly Leu Gly Leu Gln Phe Pro Glu Gln Gly Phe Pro Ala Gly Pro
180 185 190
Pro Leu Leu Pro Pro His Met Gly Gly His Tyr Arg Asp Cys Gln Ser
195 200 205
Leu Gly Ala Pro Pro Leu Asp Gly Tyr Pro Leu Pro Thr Pro Asp Thr
210 215 220
Ser Pro Leu Asp Gly Val Asp Pro Asp Pro Ala Phe Phe Ala Ala Pro
225 230 235 240
Met Pro Gly Asp Cys Pro Ala Ala Gly Thr Tyr Ser Tyr Ala Gln Val
245 250 255
Ser Asp Tyr Ala Gly Pro Pro Glu Pro Pro Ala Gly Pro Met His Pro
260 265 270
Arg Leu Gly Pro Glu Pro Ala Gly Pro Ser Ile Pro Gly Leu Leu Ala
275 280 285
Pro Pro Ser Ala Leu His Val Tyr Tyr Gly Ala Met Gly Ser Pro Gly
290 295 300
Ala Gly Gly Gly Arg Gly Phe Gln Met Gln Pro Gln His Gln His Gln
305 310 315 320
His Gln His Gln His His Pro Pro Gly Pro Gly Gln Pro Ser Pro Pro
325 330 335
Pro Glu Ala Leu Pro Cys Arg Asp Gly Thr Asp Pro Ser Gln Pro Ala

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121

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	355		360		365
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<210> 104

<211> 2398

<212> DNA

<213> Homo sapiens

<400> 104

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<210> 105
 <211> 232
 <212> PRT
 <213> Homo sapiens

<400> 105
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 Met Glu Lys Thr Pro His Cys Phe Leu Thr Asp Gln Gly Ala Ala Gln
 35 40 45
 Phe Ala Ala Ala Met Gly Val Pro Glu Ile Pro Gly Glu Lys Leu Val
 50 55 60
 Thr Glu Arg Asn Lys Lys Arg Leu Glu Lys Glu Lys His Glu Lys Gly
 65 70 75 80
 Ala Gln Lys Thr Asp Cys Gln Lys Asn Leu Gly Thr Val Gly Ala Val
 85 90 95
 Ala Leu Asp Cys Lys Gly Asn Val Ala Tyr Ala Thr Ser Thr Gly Gly
 100 105 110
 Ile Val Asn Lys Met Val Gly Arg Val Gly Asp Ser Pro Cys Leu Gly
 115 120 125
 Ala Gly Gly Tyr Ala Asp Asn Asp Ile Gly Ala Val Ser Thr Thr Gly
 130 135 140
 His Gly Glu Ser Ile Leu Lys Val Asn Leu Ala Arg Leu Thr Leu Phe
 145 150 155 160
 His Ile Glu Gln Gly Lys Thr Val Glu Glu Ala Ala Asp Leu Ser Leu
 165 170 175
 Gly Tyr Met Lys Ser Arg Val Lys Gly Leu Gly Gly Leu Ile Val Val
 180 185 190
 Ser Lys Thr Gly Asp Trp Val Ala Lys Trp Thr Ser Thr Ser Met Pro
 195 200 205
 Trp Ala Ala Ala Lys Asp Gly Lys Leu His Phe Gly Ile Asp Pro Asp
 210 215 220
 Asp Thr Thr Ile Thr Asp Leu Pro
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<210> 106
 <211> 1811
 <212> DNA
 <213> Homo sapiens

<400> 106
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123

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<210> 107

<211> 282

<212> PRT

<213> Homo sapiens

<400> 107

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Gly Arg His Ser Ile Thr Val Thr Thr Val Ala Ser Ala Gly Asn Ile
35     40     45
Gly Glu Asp Gly Ile Gln Ser Cys Thr Phe Glu Pro Asp Ile Lys Leu
50     55     60
Ser Asp Ile Val Ile Gln Trp Leu Lys Glu Gly Val Leu Gly Leu Val
65     70     75     80
His Glu Phe Lys Glu Gly Lys Asp Glu Leu Ser Glu Gln Asp Glu Met
85     90     95
Phe Arg Gly Arg Thr Ala Val Phe Ala Asp Gln Val Ile Val Gly Asn
100    105    110
Ala Ser Leu Arg Leu Lys Asn Val Gln Leu Thr Asp Ala Gly Thr Tyr
115    120    125
Lys Cys Tyr Ile Ile Thr Ser Lys Gly Lys Gly Asn Ala Asn Leu Glu
130    135    140
Tyr Lys Thr Gly Ala Phe Ser Met Pro Glu Val Asn Val Asp Tyr Asn
145    150    155    160
Ala Ser Ser Glu Thr Leu Arg Cys Glu Ala Pro Arg Trp Phe Pro Gln
165    170    175
Pro Thr Val Val Trp Ala Ser Gln Val Asp Gln Gly Ala Asn Phe Ser
180    185    190
Glu Val Ser Asn Thr Ser Phe Glu Leu Asn Ser Glu Asn Val Thr Met
195    200    205
Lys Val Val Ser Val Leu Tyr Asn Val Thr Ile Asn Asn Thr Tyr Ser
210    215    220
Cys Met Ile Glu Asn Asp Ile Ala Lys Ala Thr Gly Asp Ile Lys Val
225    230    235    240
Thr Glu Ser Glu Ile Lys Arg Arg Ser His Leu Gln Leu Leu Asn Ser
245    250    255
Lys Ala Ser Leu Cys Val Ser Ser Phe Phe Ala Ile Ser Trp Ala Leu
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<210> 108
<211> 2611
<212> DNA
<213> Homo sapiens

<400> 108
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<210> 109
<211> 150
<212> PRT

<213> Homo sapiens

<400> 109

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 20           25           30
Asn Ala Asp Gly His Gly Glu Val Trp Thr Asp Trp Asn Asn Met Ser
 35           40           45
Lys Phe Phe Gln Tyr Gly Trp Arg Cys Thr Thr Asn Glu Asn Thr Tyr
 50           55           60
Ser Asn Arg Thr Leu Met Gly Asn Trp Asn Gln Glu Arg Tyr Asp Leu
 65           70           75           80
Arg Asn Ile Val Gln Pro Lys Pro Leu Pro Ser Gln Phe Gly His Tyr
 85           90           95
Phe Glu Thr Thr Tyr Asp Thr Ser Tyr Asn Asn Lys Met Pro Leu Ser
100           105           110
Thr His Arg Phe Lys Arg Glu Pro His Trp Phe Pro Gly His Gln Pro
115           120           125
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<210> 110

<211> 1032

<212> DNA

<213> Homo sapiens

<400> 110

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cactcctaca aggtcagcaa ctacagccga gggagtggcc gctgcataca gatgtgttct 780
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<210> 111

<211> 257

<212> PRT

<213> Homo sapiens

<400> 111

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 1           5           10           15

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126

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Leu	Leu	Asn	Val	Cys	Met	Asn	Ala	Lys	His	His	Lys	Glu	Lys	Pro
		35					40				45			Gly
Pro	Glu	Asp	Lys	Leu	His	Glu	Gln	Cys	Arg	Pro	Trp	Arg	Lys	Asn
		50				55					60			Ala
Cys	Cys	Ser	Thr	Asn	Thr	Ser	Gln	Glu	Ala	His	Lys	Asp	Val	Ser
		65			70					75				80
Leu	Tyr	Arg	Phe	Asn	Trp	Asn	His	Cys	Gly	Glu	Met	Ala	Pro	Ala
			85						90				95	Cys
Lys	Arg	His	Phe	Ile	Gln	Asp	Thr	Cys	Leu	Tyr	Glu	Cys	Ser	Pro
		100					105						110	Asn
Leu	Gly	Pro	Trp	Ile	Gln	Gln	Val	Asp	Gln	Ser	Trp	Arg	Lys	Glu
		115					120					125		Arg
Val	Leu	Asn	Val	Pro	Leu	Cys	Lys	Glu	Asp	Cys	Glu	Gln	Trp	Trp
		130				135					140			Glu
Asp	Cys	Arg	Thr	Ser	Tyr	Thr	Cys	Lys	Ser	Asn	Trp	His	Lys	Gly
		145			150					155				160
Asn	Trp	Thr	Ser	Gly	Phe	Asn	Lys	Cys	Ala	Val	Gly	Ala	Ala	Cys
			165					170						175
Pro	Phe	His	Phe	Tyr	Phe	Pro	Thr	Pro	Thr	Val	Leu	Cys	Asn	Glu
		180					185						190	Ile
Trp	Thr	His	Ser	Tyr	Lys	Val	Ser	Asn	Tyr	Ser	Arg	Gly	Ser	Gly
		195					200					205		Arg
Cys	Ile	Gln	Met	Trp	Phe	Asp	Pro	Ala	Gln	Gly	Asn	Pro	Asn	Glu
		210				215					220			Glu
Val	Ala	Arg	Phe	Tyr	Ala	Ala	Ala	Met	Ser	Gly	Ala	Gly	Pro	Trp
		225			230					235				240
Ala	Trp	Pro	Phe	Leu	Leu	Ser	Leu	Ala	Leu	Met	Leu	Leu	Trp	Leu
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Ser

<210> 112

<211> 1104

<212> DNA

<213> Homo sapiens

<400> 112

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1104

<210> 113

<211> 939

<212> DNA

<213> Homo sapiens

<400> 113

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agtggccgct	gcatccagat	gtggttcgac	ccagcccagg	gcaaccccaa	tgaggagggt	720
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<210> 114

<211> 1331

<212> DNA

<213> Homo sapiens

<400> 114

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<210> 115

<211> 929

<212> DNA

<213> Homo sapiens

<400> 115

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<210> 116

<211> 858

<212> DNA

<213> Homo sapiens

<400> 116

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<210> 117

<211> 243

<212> PRT

<213> Homo sapiens

<400> 117

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20          25          30
Asn Val Cys Met Asn Ala Lys His His Lys Thr Gln Pro Ser Pro Glu
35          40          45
Asp Glu Leu Tyr Gly Gln Cys Ser Pro Trp Lys Lys Asn Ala Cys Cys
50          55          60
Thr Ala Ser Thr Ser Gln Gln Leu His Lys Asp Thr Ser Arg Leu Tyr
65          70          75          80

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129

Asn	Phe	Asn	Trp	Asp	His	Cys	Gly	Lys	Met	Glu	Pro	Thr	Cys	Lys	Arg
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His	Phe	Ile	Gln	Asp	Ser	Cys	Leu	Tyr	Glu	Cys	Ser	Pro	Asn	Leu	Gly
			100					105					110		
Pro	Trp	Ile	Arg	Gln	Val	Asn	Gln	Ser	Trp	Arg	Lys	Glu	Arg	Ile	Leu
		115					120					125			
Asn	Val	Pro	Leu	Cys	Lys	Glu	Asp	Cys	Glu	Arg	Trp	Trp	Glu	Asp	Cys
		130				135					140				
Arg	Thr	Ser	Tyr	Thr	Cys	Lys	Ser	Asn	Trp	His	Lys	Gly	Trp	Asn	Trp
		145			150					155				160	
Thr	Ser	Gly	Ile	Asn	Glu	Cys	Pro	Ala	Gly	Ala	Leu	Cys	Ser	Thr	Phe
			165						170					175	
Glu	Ser	Tyr	Phe	Pro	Thr	Pro	Ala	Ala	Leu	Cys	Glu	Gly	Leu	Trp	Ser
			180				185						190		
His	Ser	Phe	Lys	Val	Ser	Asn	Tyr	Ser	Arg	Gly	Ser	Gly	Arg	Cys	Ile
		195				200				205					
Gln	Met	Trp	Phe	Asp	Ser	Ala	Gln	Gly	Asn	Pro	Asn	Glu	Glu	Val	Ala
		210				215				220					
Lys	Phe	Tyr	Ala	Ala	Ala	Met	Asn	Ala	Gly	Ala	Pro	Ser	Arg	Gly	Ile
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<210> 118

<211> 1362

<212> DNA

<213> Homo sapiens

<400> 118

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<210> 119

<211> 453

<212> PRT

<213> Homo sapiens

<400> 119

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Leu Ile Leu Val Tyr Leu Ile Ile Phe Val Met Gly Leu Leu Gly Asn
 35      40      45
Ser Ala Thr Ile Arg Val Thr Gln Val Leu Gln Lys Lys Gly Tyr Leu
 50      55      60
Gln Lys Glu Val Thr Asp His Met Val Ser Leu Ala Cys Ser Asp Ile
 65      70      75      80
Leu Val Phe Leu Ile Gly Met Pro Met Glu Phe Tyr Ser Ile Ile Trp
 85      90      95
Asn Pro Leu Thr Thr Ser Ser Tyr Thr Leu Ser Cys Lys Leu His Thr
100      105      110
Phe Leu Phe Glu Ala Cys Ser Tyr Ala Thr Leu Leu His Val Leu Thr
115      120      125
Leu Ser Phe Glu Arg Tyr Ile Ala Ile Cys His Pro Phe Arg Tyr Lys
130      135      140
Ala Val Ser Gly Pro Cys Gln Val Lys Leu Leu Ile Gly Phe Val Trp
145      150      155      160
Val Thr Ser Ala Leu Val Ala Leu Pro Leu Leu Phe Ala Met Gly Thr
165      170      175
Glu Tyr Pro Leu Val Asn Val Pro Ser His Arg Gly Leu Thr Cys Asn
180      185      190
Arg Ser Ser Thr Arg His His Glu Gln Pro Glu Thr Ser Asn Met Ser
195      200      205
Ile Cys Thr Asn Leu Ser Ser Arg Trp Thr Val Phe Gln Ser Ser Ile
210      215      220
Phe Gly Ala Phe Val Val Tyr Leu Val Val Leu Leu Ser Val Ala Phe
225      230      235      240
Met Cys Trp Asn Met Met Gln Val Leu Met Lys Ser Gln Lys Gly Ser
245      250      255
Leu Ala Gly Gly Thr Arg Pro Pro Gln Leu Arg Lys Ser Glu Ser Glu
260      265      270
Glu Ser Arg Thr Ala Arg Arg Gln Thr Ile Ile Phe Leu Arg Leu Ile
275      280      285
Val Val Thr Leu Ala Val Cys Trp Met Pro Asn Gln Ile Arg Arg Ile
290      295      300
Met Ala Ala Ala Lys Pro Lys His Asp Trp Thr Arg Ser Tyr Phe Arg
305      310      315      320
Ala Tyr Met Ile Leu Leu Pro Phe Ser Glu Thr Phe Phe Tyr Leu Ser
325      330      335
Ser Val Ile Asn Pro Leu Leu Tyr Thr Val Ser Ser Gln Gln Phe Arg
340      345      350
Arg Val Phe Val Gln Val Leu Cys Cys Arg Leu Ser Leu Gln His Ala
355      360      365
Asn His Glu Lys Arg Leu Arg Val His Ala His Ser Thr Thr Asp Ser
370      375      380
Ala Arg Phe Val Gln Arg Pro Leu Leu Phe Ala Ser Arg Arg Gln Ser
385      390      395      400
Ser Ala Arg Arg Thr Glu Lys Ile Phe Leu Ser Thr Phe Gln Ser Glu
405      410      415
Ala Glu Pro Gln Ser Lys Ser Gln Ser Leu Ser Leu Glu Ser Leu Glu
420      425      430
Pro Asn Ser Gly Ala Lys Pro Ala Asn Ser Ala Ala Glu Asn Gly Phe
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Gln Glu His Glu Val
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<210> 120
<211> 2870
<212> DNA
<213> Homo sapiens

<400> 120

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<210> 121
 <211> 403
 <212> PRT
 <213> Homo sapiens

<400> 121

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      20           25           30
Thr Ser Arg Gly Cys Gly Leu Asp Leu Leu Pro Gln Tyr Val Ser Leu
      35           40           45
Cys Asp Leu Asp Ala Ile Trp Gly Ile Val Val Glu Ala Val Ala Gly
      50           55           60
Ala Gly Ala Leu Ile Thr Leu Leu Leu Met Leu Ile Leu Leu Val Arg
      65           70           75           80
Leu Pro Phe Ile Lys Glu Lys Glu Lys Lys Ser Pro Val Gly Leu His
      85           90           95
Phe Leu Phe Leu Leu Gly Thr Leu Gly Leu Phe Gly Leu Thr Phe Ala
      100          105          110
Phe Ile Ile Gln Glu Asp Glu Thr Ile Cys Ser Val Arg Arg Phe Leu
      115          120          125
Trp Gly Val Leu Phe Ala Leu Cys Phe Ser Cys Leu Leu Ser Gln Ala
      130          135          140
Trp Arg Val Arg Arg Leu Val Arg His Gly Thr Gly Pro Ala Gly Trp
      145          150          155          160
Gln Leu Val Gly Leu Ala Leu Cys Leu Met Leu Val Gln Val Ile Ile
      165          170          175
Ala Val Glu Trp Leu Val Leu Thr Val Leu Arg Asp Thr Arg Pro Ala
      180          185          190
Cys Ala Tyr Glu Pro Met Asp Phe Val Met Ala Leu Ile Tyr Asp Met
      195          200          205
Val Leu Leu Val Val Thr Leu Gly Leu Ala Leu Phe Thr Leu Cys Gly
      210          215          220
Lys Phe Lys Arg Trp Lys Leu Asn Gly Ala Phe Leu Leu Ile Thr Ala
      225          230          235          240
Phe Leu Ser Val Leu Ile Trp Val Ala Trp Met Thr Met Tyr Leu Phe
      245          250          255
Gly Asn Val Lys Leu Gln Gln Gly Asp Ala Trp Asn Asp Pro Thr Leu
      260          265          270
Ala Ile Thr Leu Ala Ala Ser Gly Trp Val Phe Val Ile Phe His Ala
      275          280          285
Ile Pro Glu Ile His Cys Thr Leu Leu Pro Ala Leu Gln Glu Asn Thr
      290          295          300
Pro Asn Tyr Phe Asp Thr Ser Gln Pro Arg Met Arg Glu Thr Ala Phe
      305          310          315          320
Glu Glu Asp Val Gln Leu Pro Arg Ala Tyr Met Glu Asn Lys Ala Phe
      325          330          335
Ser Met Asp Glu His Asn Ala Ala Leu Arg Thr Ala Gly Phe Pro Asn
      340          345          350
Gly Ser Leu Gly Lys Arg Pro Ser Gly Ser Leu Gly Lys Arg Pro Ser
      355          360          365
Ala Pro Phe Arg Ser Asn Val Tyr Gln Pro Thr Glu Met Ala Val Val
      370          375          380
Leu Asn Gly Gly Thr Ile Pro Thr Ala Pro Pro Ser His Thr Gly Arg
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His Leu Trp

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133

<210> 122
 <211> 1474
 <212> DNA
 <213> Homo sapiens

<400> 122
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<210> 123
 <211> 320
 <212> PRT
 <213> Homo sapiens

<400> 123
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 20 25 30
 Met Tyr Val Val Ala Met Cys Gly Asn Cys Ile Val Val Phe Ile Val
 35 40 45
 Arg Thr Glu Arg Ser Leu His Ala Pro Met Tyr Leu Phe Leu Cys Met
 50 55 60
 Leu Ala Ala Ile Asp Leu Ala Leu Ser Thr Ser Thr Met Pro Lys Ile
 65 70 75 80
 Leu Ala Leu Phe Trp Phe Asp Ser Arg Glu Ile Ser Ile Glu Ala Cys
 85 90 95
 Leu Thr Gln Met Phe Phe Ile His Ala Leu Ser Ala Ile Glu Ser Thr
 100 105 110
 Ile Leu Leu Ala Met Ala Phe Asp Arg Tyr Val Ala Ile Cys His Pro
 115 120 125
 Leu Arg His Ala Ala Val Leu Asn Asn Thr Val Thr Ala Gln Ile Gly

130	135	140
Ile Val Ala Val Val Arg Gly Ser Leu Phe Phe Phe Pro Leu Pro Leu		
145	150	155
Leu Ile Lys Arg Leu Ala Phe Cys His Ser Asn Val Leu Ser His Ser		160
	165	170
Tyr Cys Val His Gln Asp Val Met Lys Leu Ala Tyr Ala Asp Thr Leu		175
	180	185
Pro Asn Val Val Tyr Gly Leu Thr Ala Ile Leu Leu Val Met Gly Val		190
	195	200
Asp Val Met Phe Ile Ser Leu Ser Tyr Phe Leu Ile Ile Arg Thr Val		205
	210	215
Leu Gln Leu Pro Ser Lys Ser Glu Arg Ala Lys Ala Phe Gly Thr Cys		220
	225	230
Val Ser His Ile Gly Val Val Leu Ala Phe Tyr Val Pro Leu Ile Gly		235
	245	250
Leu Ser Val Val His Arg Phe Gly Asn Ser Leu His Pro Ile Val Arg		255
	260	265
Val Val Met Gly Asp Ile Tyr Leu Leu Leu Pro Pro Val Ile Asn Pro		270
	275	280
Ile Ile Tyr Gly Ala Lys Thr Lys Gln Ile Arg Thr Arg Val Leu Ala		285
	290	295
Met Phe Lys Ile Ser Cys Asp Lys Asp Leu Gln Ala Val Gly Gly Lys		300
	305	310
		315
		320

<210> 124

<211> 2205

<212> DNA

<213> Homo sapiens

<400> 124

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135

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<210> 125

<211> 532

<212> PRT

<213> Homo sapiens

<400> 125

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      20      25      30
Thr  Pro  Leu  Pro  Glu  Glu  Val  Lys  Arg  Ser  Gln  Pro  Leu  Leu  Ile  Pro
      35      40      45
Thr  Thr  Gly  Arg  Lys  Leu  Arg  Glu  Glu  Arg  Arg  Ala  Thr  Ser  Leu
      50      55      60
Pro  Ser  Ile  Pro  Asn  Pro  Phe  Pro  Glu  Leu  Cys  Ser  Pro  Pro  Ser  Gln
      65      70      75      80
Ser  Pro  Ile  Leu  Gly  Gly  Pro  Ser  Ser  Ala  Arg  Gly  Leu  Leu  Pro  Arg
      85      90      95
Asp  Ala  Ser  Arg  Pro  His  Val  Val  Lys  Val  Tyr  Ser  Glu  Asp  Gly  Ala
      100      105      110
Cys  Arg  Ser  Val  Glu  Val  Ala  Ala  Gly  Ala  Thr  Ala  Arg  His  Val  Cys
      115      120      125
Glu  Met  Leu  Val  Gln  Arg  Ala  His  Ala  Leu  Ser  Asp  Glu  Thr  Trp  Gly
      130      135      140
Leu  Val  Glu  Cys  His  Pro  His  Leu  Ala  Leu  Glu  Arg  Gly  Leu  Glu  Asp
      145      150      155      160
His  Glu  Ser  Val  Val  Glu  Val  Gln  Ala  Ala  Trp  Pro  Val  Gly  Gly  Asp
      165      170      175
Ser  Arg  Phe  Val  Phe  Arg  Lys  Asn  Phe  Ala  Lys  Tyr  Glu  Leu  Phe  Lys
      180      185      190
Ser  Ser  Pro  His  Ser  Leu  Phe  Pro  Glu  Lys  Met  Val  Ser  Ser  Cys  Leu
      195      200      205
Asp  Ala  His  Thr  Gly  Ile  Ser  His  Glu  Asp  Leu  Ile  Gln  Asn  Phe  Leu
      210      215      220
Asn  Ala  Gly  Ser  Phe  Pro  Glu  Ile  Gln  Gly  Phe  Leu  Gln  Leu  Arg  Gly
      225      230      235      240
Ser  Gly  Arg  Lys  Leu  Trp  Lys  Arg  Phe  Phe  Cys  Phe  Leu  Arg  Arg  Ser
      245      250      255
Gly  Leu  Tyr  Tyr  Ser  Thr  Lys  Gly  Thr  Ser  Lys  Asp  Pro  Arg  His  Leu
      260      265      270
Gln  Tyr  Val  Ala  Asp  Val  Asn  Glu  Ser  Asn  Val  Tyr  Val  Val  Thr  Gln
      275      280      285
Gly  Arg  Lys  Leu  Tyr  Gly  Met  Pro  Thr  Asp  Phe  Gly  Phe  Cys  Val  Lys
      290      295      300
Pro  Asn  Lys  Leu  Arg  Asn  Gly  His  Lys  Gly  Leu  Arg  Ile  Phe  Cys  Ser
      305      310      315      320
Glu  Asp  Glu  Gln  Ser  Arg  Thr  Cys  Trp  Leu  Ala  Ala  Phe  Arg  Leu  Phe

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[illegible]

<210> 126

<211> 1619

<212> DNA

<213> Homo sapiens

<400> 126

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ggctcggggcc	ggcccacagg	cttccccagg	ctctcccacag	cccatggggg	tcggcggggga	180
gcgcgcagct	cccttgctctt	cacccacggg	agctgcccaac	ccctctggag	gtctctggggt	240
ctctggaagaa	cgacgcccctc	actagagggg	aattgggaaag	ccacacatga	gaatctcaac	300
gcacgcctcgc	ctctctacct	ggagaaaggtt	gcgcctcctg	agagagccca	catgaagctgc	360
gaaagccgca	tcctgaaatg	gcaccacgag	agagatctcg	gcagtaagaa	agattattcc	420
cagtaatgag	aaaactctac	acacctcgag	gcagcataga	tgtatggtaa	gatgaccaat	480
ctcgaagata	ttctctctac	tgaacatgct	aggatggagc	tggaatgact	caacctcaag	540
tatgaataat	aacactcttc	taagaaagcg	tttggaaattg	aagtctgagg	ctctcgaagg	600
accttgagac	acctgacctt	ttgtcaaca	gacctagaac	agaggggtga	aggaaatgag	660
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agtgacttca	atgtcaatgt	gaaggtggat	acaggttcca	gggaagatct	gattaaggtc	780
ctggagagata	tggagacaaga	atatgagctt	ataataaaga	agaaagcagt	agacttggac	840
acttggtata	aagaacagta	tcgacgcata	tcocaggagg	gcagccatcg	ggcactgtgc	900
cagagcagac	aaggtgacat	cccgacacgt	aagcgcacat	tcggcccgct	ggagatgac	960
ctcggagcag	agatcacgac	gaaatctgct	tttggaaaaca	tgttatccga	gacccagtgt	1020
cggtaactct	gcaagctcca	ggacatctca	gatgatcatc	ccacatatga	ggaggaactg	1080
acagctctac	gcacagaaat	gcggcgcgac	aacaaatgat	acaagatgtg	gctgggcatc	1140
aaaacccacat	ctggagaagga	aatcacccag	ctctgggggct	agagagttaa	gagagagtga	1200
ggccgcaggg	aagaattcaa	ctgcgacatg	caactccaaa	gatacaggcc	gatacaggcc	1260
ataccccagc	agacatctaa	gtagcagatta	gtttcttgtc	aagttaattca	aatccaaaag	1320
cacacgatag	accaatgaaa	gtttcccgct	gttttaaggt	ctatttttgc	ccaaaggaag	1380

tcctgtcaca gacaccagtg agtgagttct aaaagatacc cttggaatta tcagactcag 1440
 aaacttttat tttttttttt ctgtaacagt ctcaccagac ttctcataat gctcttaata 1500
 tattgcactt ttctaatacaa agtgcgagtt tatgagggta aagctctact ttctactatgc 1560
 agccttcaga ttctcatcat ttgtcatcta ttttgtagcc aataaaaactc cgactatgc 1619

<210> 127

<211> 422

<212> PRT

<213> Homo sapiens

<400> 127

Met	Asn	Ser	Gly	His	Ser	Phe	Ser	Gln	Thr	Pro	Ser	Ala	Ser	Phe	His
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Gly	Ala	Gly	Gly	Gly	Trp	Gly	Arg	Pro	Arg	Ser	Phe	Pro	Arg	Ala	Pro
		20					25						30		
Thr	Val	His	Gly	Gly	Ala	Gly	Gly	Ala	Arg	Ile	Ser	Leu	Ser	Phe	Thr
		35					40					45			
Thr	Arg	Ser	Cys	Pro	Pro	Pro	Gly	Gly	Ser	Trp	Gly	Ser	Gly	Arg	Ser
		50					55				60				
Ser	Pro	Leu	Leu	Gly	Gly	Asn	Gly	Lys	Ala	Thr	Met	Gln	Asn	Leu	Asn
		65				70			75				80		
Asp	Arg	Leu	Ala	Ser	Tyr	Leu	Glu	Lys	Val	Arg	Ala	Leu	Glu	Glu	Ala
			85				90						95		
Asn	Met	Lys	Leu	Glu	Ser	Arg	Ile	Leu	Lys	Trp	His	Gln	Gln	Arg	Asp
			100				105						110		
Pro	Gly	Ser	Lys	Lys	Asp	Tyr	Ser	Gln	Tyr	Glu	Glu	Asn	Ile	Thr	His
			115				120					125			
Leu	Gln	Glu	Gln	Ile	Val	Asp	Gly	Lys	Met	Thr	Asn	Ala	Gln	Ile	Ile
			130			135				140					
Leu	Leu	Ile	Asp	Asn	Ala	Arg	Met	Ala	Val	Asp	Asp	Phe	Asn	Leu	Lys
			145			150				155				160	
Tyr	Glu	Asn	Glu	His	Ser	Phe	Lys	Lys	Asp	Leu	Glu	Ile	Glu	Val	Glu
				165					170				175		
Gly	Leu	Arg	Arg	Thr	Leu	Asp	Asn	Leu	Thr	Ile	Val	Thr	Thr	Asp	Leu
			180				185						190		
Glu	Gln	Glu	Val	Glu	Gly	Met	Arg	Lys	Glu	Leu	Ile	Leu	Met	Lys	Glu
			195				200					205			
His	His	Glu	Gln	Glu	Met	Glu	Glu	His	His	Val	Pro	Ser	Asp	Phe	Asn
		210				215					220				
Val	Asn	Val	Lys	Val	Asp	Thr	Gly	Pro	Arg	Glu	Asp	Leu	Ile	Lys	Val
				225		230				235				240	
Leu	Glu	Asp	Met	Arg	Gln	Glu	Tyr	Glu	Leu	Ile	Ile	Lys	Lys	Lys	His
				245					250				255		
Arg	Asp	Leu	Asp	Thr	Trp	Tyr	Lys	Glu	Gln	Ser	Ala	Ala	Met	Ser	Gln
			260					265					270		
Glu	Ala	Ala	Ser	Pro	Ala	Thr	Val	Gln	Ser	Arg	Gln	Gly	Asp	Ile	His
			275				280					285			
Glu	Leu	Lys	Arg	Thr	Phe	Gln	Ala	Leu	Glu	Ile	Asp	Leu	Gln	Ala	Gln
			290			295				300					
Tyr	Ser	Thr	Lys	Ser	Ala	Leu	Glu	Asn	Met	Leu	Ser	Glu	Thr	Gln	Ser
				305		310				315				320	
Arg	Tyr	Ser	Cys	Lys	Leu	Gln	Asp	Met	Gln	Glu	Ile	Ile	Ser	His	Tyr
				325					330				335		
Glu	Glu	Glu	Leu	Thr	Gln	Leu	Arg	His	Glu	Leu	Glu	Arg	Gln	Asn	Asn
			340				345						350		
Glu	Tyr	Gln	Val	Leu	Leu	Gly	Ile	Lys	Thr	His	Leu	Glu	Lys	Glu	Ile
			355				360					365			
Thr	Thr	Tyr	Arg	Arg	Leu	Leu	Glu	Gly	Glu	Ser	Glu	Gly	Thr	Arg	Glu

138

370	375	380
Glu Ser Lys Ser Ser Met Lys Val Ser Ala Thr	Pro Lys Ile Lys Ala	
385	390	400
Ile Thr Gln Glu Thr Ile Asn Gly Arg Leu Val	Leu Cys Gln Val Asn	
	405	415
Glu Ile Gln Lys His Ala		
	420	

<210> 128

<211> 1359

<212> DNA

<213> Homo sapiens

<400> 128

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cactaaaacg	tcocctgccta	caaatcatcc	ggccaaatta	tgagttcatt	gtattatgcg	120
aatgcctttat	tttctaaata	tcacagctca	agttcggttt	tcgctaccgg	agocctccca	180
gaacaaactt	cttgtgcgtt	tgcttccaac	ccccagcgcc	cgggctatgg	agcggtgttg	240
ggcgctctct	tcgcgcgctc	gatgcagggc	ttgtaccocg	cggggggggg	catggcgggc	300
cagagcgcg	ccggcgctcta	cgcggcgccg	tatgggtctg	agccgagttc	cttcaacatg	360
cactgcgcgc	cccttgagca	gaacctctcc	ggggtgtgtc	ccggcgactc	cgccaaggcg	420
cgggcgccca	aggagcagag	ggactcggac	ttggcgcccg	agagtaactt	ccggatctac	480
ccctcgatgc	gaagctcagg	aactgaccgc	aaacgagggc	gccagacctc	caccgcgtac	540
cagaccctgg	agctggagaa	ggaatttcac	tacaatcgct	acctgacgcg	cgggcgggcg	600
atcgagatcg	cgcacgcgct	ctgcctcacc	gaaagacaga	tcaagatttg	gtttcagaac	660
cgggcgcatga	agtggaaaaa	ggagaacaag	accgcggggc	cggggaccac	cgccaagac	720
agggtctga	cagaggagga	agagggaag	tgagggatgg	agaaaggcca	gaggaagaga	780
catgaaaaag	ggagacgaag	agaaagccag	ctctggggac	tgaatcagga	aaatcaaatc	840
gaataggggaa	gtaaaaaaac	aaaaacaaaa	acaaaaaaaa	acaaaaaaaa	accctatttta	900
aatgaaagga	gttttaaaac	attttttaag	gagggagaaa	ggagaaaattt	tggtttttca	960
acactgaaaa	aatatgtacct	ataggaaagt	ctgtcaggtt	tggttttttt	gtacaatatg	1020
aaaaggacat	tatctacctg	ttctgtagct	ttctggaatt	tacctccctc	ttctatgttt	1080
gctattgttaa	ggtctttgta	aaatctlgca	gttttgttaa	ccctctttaa	tgctgtcttt	1140
gtggactgtg	ggtctggact	aacctgtgg	ttgcctgccc	tcctgtgcct	cgcgcttccc	1200
agcagcgcca	ccaaggggcc	ttaggggacc	ccaaaaacct	ccactcgctg	gttcccccaag	1260
cgcctgtcgt	ctgctgcttg	cttcccgctc	ccagccacca	tgctcccttt	acattctgtg	1320
tgatatctaaa	ggatggaaaa	ataaaacgca	attaaaaat			1359

<210> 129

<211> 217

<212> PRT

<213> Homo sapiens

<400> 129

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	20
Ala Phe Ala Ser Asn Pro Gln Arg Pro Gly Tyr Gly Ala Gly Ser Gly	25
	30
Ala Ser Phe Ala Gly Ser Met Gln Gly Leu Tyr Pro Gly Gly Gly Gly	35
	40
Met Ala Gly Gln Ser Ala Ala Gly Val Tyr Ala Ala Gly Tyr Gly Leu	45
	50
Glu Pro Ser Ser Phe Asn Met His Cys Ala Pro Phe Glu Gln Asn Leu	55
	60
Ser Gly Val Cys Pro Gly Asp Ser Ala Lys Ala Ala Gly Ala Lys Glu	65
	70
	75
	80
	85
	90
	95

[illegible]

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<210> 130
<211> 1257
<212> DNA
<213> Homo sapiens
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400> 130						
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agcccgagg	cattgcagcc	cggcccgccg	cgcctccccc	gcagcgccgc	cgcggcctcc	180
tgcgtctcct	gctgctcgag	ctgagccgcg	cgctcgagcg	ctctcgatcc	cccaagggtga	240
agcaaaaagg	cagagctccgg	cagagcgagg	gggtggaact	gtataatgga	atgtgcttac	300
aaggcgccag	aggagtcgg	ggtcgagacg	gggcgcctcg	ggccaatgga	atccggcgta	360
cacctgggat	ccagatcggc	gatggattca	aggagaaaag	gggggaatgt	ctcgaggaaa	420
gctttgagca	gtctctggca	cccaactaca	acagagcttc	atggatgcca	ttgaattgat	480
cgatagatct	tggcgaataa	cggagatgta	caattacaaa	gatcggtcta	aatagtgctc	540
taagagcttt	gttgaaatgc	ctctctggcg	taaaattcag	aatgatcgc	gtcgacgctt	600
ggttatttcac	attcaatgag	gctgaattgt	caggacotct	tcccatctga	gctataattt	660
attttggaca	aggaagccct	gaaatgaatt	cccaacttaa	tttcatcgac	acctctctcg	720
tggaaaggact	ttgtgaagga	atttgtgctg	gattagtggg	tgttgctatc	tgggttgcca	780
cttgttcaga	taccocaaaa	ggagatgctt	ctactgtagt	taacttcagt	ctctgcacga	840
ttttggaaga	actacocaaa	taaatgtctt	aattttctat	tgctacctct	ttttttatta	900
tgcccttgta	tggtttcact	aaatgacatt	ttaaatgaat	ttaatgtatc	atctgaatga	960
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caattattcat	tttgtctcaa	tcaaaagctg	tttccaattt	tttttttggt	gggtgaagta	1080
ctttttctcat	agtcacatct	ctccaaccta	taattttgaa	ttattgttgt	gtcttttggt	1140
ttttctctcta	gtatagattct	tttataaaaa	taataaaagt	accatctctt	gtacaaattg	1200
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<210> 131
<211> 278
<212> PRT
<213> Homo sapiens
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<400>	131														
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Val	Pro	Leu	Leu	Gly	Leu	Leu	Arg	Leu	Gln	Leu	Arg	Ala	Ala	Arg	Gln
			20					25					30		
Pro	Gly	Ala	Met	Arg	Pro	Gln	Gly	Pro	Ala	Ala	Ser	Pro	Gln	Arg	Leu
		35					40					45			
Arg	Glv	Leu	Leu	Leu	Leu	Leu	Leu	Gln	Leu	Pro	Ala	Pro	Ser	Ser	

140

50	55	60
Ala Ser Glu Ile Pro Lys Gly Lys Gln Lys Ala Gln Leu Arg Gln Arg		
65	70	75
Glu Val Val Asp Leu Tyr Asn Gly Met Cys Leu Gln Gly Pro Ala Gly		80
	85	90
Val Pro Gly Arg Asp Gly Ser Pro Gly Ala Asn Gly Ile Pro Gly Thr		95
	100	105
Pro Gly Ile Pro Gly Arg Asp Gly Phe Lys Gly Glu Lys Gly Glu Cys		110
	115	120
Leu Arg Glu Ser Phe Glu Glu Ser Trp Thr Pro Asn Tyr Lys Gln Cys		125
	130	135
Ser Trp Ser Ser Leu Asn Tyr Gly Ile Asp Leu Gly Lys Ile Ala Glu		140
	145	150
Cys Thr Phe Thr Lys Met Arg Ser Asn Ser Ala Leu Arg Val Leu Phe		155
	160	165
Ser Gly Ser Leu Arg Leu Lys Cys Arg Asn Ala Cys Cys Gln Arg Trp		170
	175	180
Tyr Phe Thr Phe Asn Gly Ala Glu Cys Ser Gly Pro Leu Pro Ile Glu		185
	190	195
Ala Ile Ile Tyr Leu Asp Gln Gly Ser Pro Glu Met Asn Ser Thr Ile		200
	205	210
Asn Ile His Arg Thr Ser Ser Val Glu Gly Leu Cys Glu Gly Ile Gly		215
	220	225
Ala Gly Leu Val Asp Val Ala Ile Trp Val Gly Thr Cys Ser Asp Tyr		230
	235	240
Pro Lys Gly Asp Ala Ser Thr Gly Trp Asn Ser Val Ser Arg Ile Ile		245
	250	255
Ile Glu Glu Leu Pro Lys		260
	265	270
	275	

<210> 132

<211> 1177

<212> DNA

<213> Homo sapiens

<400> 132

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ttctgtttaa	accaaaatggg	cagtctgtca	ttcacacac	cctgggtctt	catatgtggc	180
gcgccagtata	atggaatgtg	cttacaaggg	ccagcaggag	tgctgtgtcg	agacggggagc	240
cctggggcca	atggcattcc	gggtacacct	gggatccag	gtcgggatgg	attcaaaagg	300
gaaaaggggg	aatgtctgag	ggaaagcttt	gaggagtctt	ggacacccaa	ctacaagcag	360
gtttcatgga	gttcaattgaa	ttatggcata	gatcttggga	aaattgcgga	gtgtacattt	420
acaaagatgc	gttcaaatag	tgctctaaaga	gttttgttca	gtggctcact	tcggctaaaa	480
tgccagaaatg	catgctgtca	gcgttggtat	ttcacattca	atggagctga	atgttcaggga	540
cctcttccca	ttgaagctat	aatttatttg	gaccaaggaa	gccctgaaat	gaattoaaca	600
attaatatcc	atcgcacttc	ttctgtggaa	ggactttgtg	aaggaaattgg	tgctggatta	660
gtggatgttg	ctatctgggt	tggaacttgt	tcagattacc	caaaaggaga	tgcttctact	720
ggatggaatt	cagtttctcg	catcattatt	gaagaactac	caaaaataat	gccttaattt	780
tcatttgcta	cctctttttt	tattatgcct	tggaatgggt	cacttaaatg	acattttaaa	840
taagtttatg	tatacatctg	aatgaaaagc	aaagctaaat	atgtttacag	accaaaagtg	900
gatttcacac	tgttttttaa	tctagcatta	ttcatttttg	ttcaatcaaa	agtggttttca	960
atattttttt	tagttgttta	gaatactttc	ttcatagtca	cattctctca	acctataatt	1020
tggaatatgt	ttgtgtgtct	ttgttttttc	ttctagtata	gcatttttaa	aaaaatataa	1080
aagctaccaa	tcctttgtaca	atttgtaaat	gttaagaatt	ttttttatat	ctgtttaaata	1140
aaaattattt	ccaacaacw	waaaaaaaaa	aaaaagg			1177

141

<210> 133
 <211> 210
 <212> PRT
 <213> Homo sapiens

<400> 133

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Gln Tyr Asn Gly Met Cys Leu Gln Gly Pro Ala Gly Val Pro Gly Arg
  20           25           30
Asp Gly Ser Pro Gly Ala Asn Gly Ile Pro Gly Thr Pro Gly Ile Pro
  35           40           45
Gly Arg Asp Gly Phe Lys Gly Glu Lys Gly Glu Cys Leu Arg Glu Ser
  50           55           60
Phe Gly Glu Ser Trp Thr Pro Asn Tyr Lys Gln Cys Ser Trp Ser Ser
  65           70           75           80
Leu Asn Tyr Gly Ile Asp Leu Gly Lys Ile Ala Glu Cys Thr Phe Thr
  85           90           95
Lys Met Arg Ser Asn Ser Ala Leu Arg Val Leu Phe Ser Gly Ser Leu
  100          105          110
Arg Leu Lys Cys Arg Asn Ala Cys Cys Gln Arg Trp Tyr Phe Thr Phe
  115          120          125
Asn Gly Ala Glu Cys Ser Gly Pro Leu Pro Ile Glu Ala Ile Ile Tyr
  130          135          140
Leu Asp Gln Gly Ser Pro Glu Met Asn Ser Thr Ile Asn Ile His Arg
  145          150          155          160
Thr Ser Ser Val Glu Gly Leu Cys Glu Gly Ile Gly Ala Gly Leu Val
  165          170          175
Asp Val Ala Ile Trp Val Gly Thr Cys Ser Asp Tyr Pro Lys Gly Asp
  180          185          190
Ala Ser Thr Gly Trp Asn Ser Val Ser Arg Ile Ile Ile Glu Glu Leu
  195          200          205
Pro Lys
  210
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<210> 134
 <211> 1340
 <212> DNA
 <213> Homo sapiens

<400> 134

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agggagagag gcgcgcgggt gaaaggcgca ttgatgcagc ctgcggcgcc ctgcggagcgc 120
ggcgagagcca gacgtcgacc acgttctctc ctccgcctcc agctccgcgc 180
tgccccgcag ccgggagcca tgcgacccca gggccccgcc gcctccccgc agcggctccg 240
cggcctcctg ctgctcctgc tgcgcagctc gccgcgcgcg tcgagcgctc ctgagatccc 300
caagggggaag caaaaggcgc agctccggca gagggaggtg ttggacctgt ataattggaat 360
gtcgcttacaa gggcgagcag gagtgcctgg tcgagacggg agccctgggg ccaatggcat 420
ttcggttaca cctgggatcc caggtcgga tggattcaaa ggagaaaagg gggaatgtct 480
gagggaaagc tttgaggagt cctggacacc caactacaag cagtgttcatt ggagttcatt 540
gaattatgco atagatcttg ggaatttgc ggaggtgaca ttacaaaga tgcgttcaaa 600
tagtgctcta agagttttgt tcaatggctc acttcggcta aaatgcagaa atgcattgctg 660
tcagcgttgg tatttcaact tcaatggagc tgaattgtca ggacctcttc ccaattgaagc 720
tataatttat ttggaccaag gaagccctga aatgaattcn acnattanta ttcatcgcac 780
ttcttctgtg gaaggacttt gtgaaggaat tgggtcgtgga ttagtggatg ttgctatctg 840
ggttggcaat tgttcagatt acccaaaagg agatgctctt actggatgga attcagtttc 900
tcgcataatt attgaagaac taccaaaata aatgctttaa ttttcatattg ctacctcttt 960
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142

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ttttattatg ccttggaatg gttcacttaa atgacatttt aaataagttt atgtatacat 1020
ctgaatgaaa agcaaaagcta aatatgttta cagaccaaag tgtgatttca cactgttttt 1080
aaatctagca ttatttcattt tgcctcaatc aaaagtggtt tcaatatattt ttttagtggt 1140
ttagaatact ttcttcatag tcacattctc tcaacctata atttggaata ttgtgtggtt 1200
cttttggttt ttctcttagt atagcatttt taaaaaata taaaagctac caatctttgt 1260
acaatttgta aatgttaaga atttttttta tatctgttaa ataaaaatta tttocaacaa 1320
ccwwaaaaaa aaaaaaaaaa

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<210> 135

<211> 243

<212> PRT

<213> Homo sapiens

<400> 135

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Leu Leu Leu Leu Leu Gln Leu Pro Ala Pro Ser Ser Ala Ser Glu
20 25 30
Ile Pro Lys Gly Lys Gln Lys Ala Gln Leu Arg Gln Arg Glu Val Val
35 40 45
Asp Leu Tyr Asn Gly Met Cys Leu Gln Gly Pro Ala Gly Val Pro Gly
50 55 60
Arg Asp Gly Ser Pro Gly Ala Asn Gly Ile Pro Gly Thr Pro Gly Ile
65 70 75 80
Pro Gly Arg Asp Gly Phe Lys Gly Glu Lys Gly Glu Cys Leu Arg Glu
85 90 95
Ser Phe Glu Glu Ser Trp Thr Pro Asn Tyr Lys Gln Cys Ser Trp Ser
100 105 110
Ser Leu Asn Tyr Gly Ile Asp Leu Gly Lys Ile Ala Glu Cys Thr Phe
115 120 125
Thr Lys Met Arg Ser Asn Ser Ala Leu Arg Val Leu Phe Ser Gly Ser
130 135 140
Leu Arg Leu Lys Cys Arg Asn Ala Cys Cys Gln Arg Trp Tyr Phe Thr
145 150 155 160
Phe Asn Gly Ala Glu Cys Ser Gly Pro Leu Pro Ile Glu Ala Ile Ile
165 170 175
Tyr Leu Asp Gln Gly Ser Pro Glu Met Asn Ser Thr Ile Asn Ile His
180 185 190
Arg Thr Ser Ser Val Glu Gly Leu Cys Glu Gly Ile Gly Ala Gly Leu
195 200 205
Val Asp Val Ala Ile Trp Val Gly Thr Cys Ser Asp Tyr Pro Lys Gly
210 215 220
Asp Ala Ser Thr Gly Trp Asn Ser Val Ser Arg Ile Ile Ile Glu Glu
225 230 235 240
Leu Pro Lys

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<210> 136

<211> 5519

<212> DNA

<213> Homo sapiens

<400> 136

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aagtactgac tgttcaaaagc tcaggcaaac catgcagatc cacgtgttgt tggaggaggc 60
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<210> 137

<211> 765

<212> PRT

<213> Homo sapiens

<400> 137

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Tyr Cys His Lys Leu His Val Val His Arg Asp Leu Lys Pro Glu Asn
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<211> 2029

<212> DNA

<213> Homo sapiens

<400> 138

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2029

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<211> 379

<212> PRT

<213> Homo sapiens

<400> 139

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 Glu Lys Thr Leu Arg Lys Trp Leu Lys Met Phe Lys Lys Arg Gln Leu
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 <212> DNA
 <213> Homo sapiens

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<210> 141
 <211> 413
 <212> PRT
 <213> Homo sapiens

<400> 141
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 35 40 45
 Gln Lys Lys Asn Asp Thr Thr Glu Ile Glu Thr Leu Leu Leu Asn Thr
 50 55 60
 Ala Pro Lys Ile Ile Asp Glu Gln Leu Val Cys Arg Leu Ser Lys Thr
 65 70 75 80

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      85                      90
Ile Thr Arg Asn Leu Lys Leu Arg Phe Tyr Gly His Arg Gln Tyr Leu
      100                    105
Glu Cys Glu Val Phe Arg Val Glu Gly Ile Lys Asp Asn Leu Asp Asp
      115                    120
Ile Lys Arg Ile Ile Lys Ala Arg Glu His Arg Asn Arg Leu Leu Ala
      130                    135
Asp Ile Arg Asp Tyr Arg Pro Tyr Ala Asp Leu Val Ser Glu Ile Arg
      145                    150
Ile Leu Leu Val Gly Pro Val Gly Ser Gly Lys Ser Ser Phe Phe Asn
      165                    170
Ser Val Lys Ser Ile Phe His Gly His Val Thr Gly Gln Ala Val Val
      180                    185
Gly Ser Asp Thr Thr Ser Ile Thr Glu Arg Tyr Arg Ile Tyr Ser Val
      195                    200
Lys Asp Gly Lys Asn Gly Lys Ser Leu Pro Phe Met Leu Cys Asp Thr
      210                    215
Met Gly Leu Asp Gly Ala Glu Gly Ala Gly Leu Cys Met Asp Asp Ile
      225                    230
Pro His Ile Leu Lys Gly Cys Met Pro Asp Arg Tyr Gln Phe Asn Ser
      245                    250
Arg Lys Pro Ile Thr Pro Glu His Ser Thr Phe Ile Thr Ser Pro Ser
      260                    265
Leu Lys Asp Arg Ile His Cys Val Ala Tyr Val Leu Asp Ile Asn Ser
      275                    280
Ile Asp Asn Leu Tyr Ser Lys Met Leu Ala Lys Val Lys Gln Val His
      290                    295
Lys Glu Val Leu Asn Cys Gly Ile Ala Tyr Val Ala Leu Leu Thr Lys
      305                    310
Val Asp Asp Cys Ser Glu Val Leu Gln Asp Asn Phe Leu Asn Met Ser
      325                    330
Arg Ser Met Thr Ser Gln Ser Arg Val Met Asn Val His Lys Met Leu
      340                    345
Gly Ile Pro Ile Ser Asn Ile Leu Met Val Gly Asn Tyr Ala Ser Asp
      355                    360
Leu Glu Leu Asp Pro Met Lys Asp Ile Leu Ile Leu Ser Ala Leu Arg
      370                    375
Gln Met Leu Arg Ala Ala Asp Asp Phe Leu Glu Asp Leu Pro Leu Glu
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<210> 142

<211> 1032

<212> DNA

<213> Homo sapiens

<400> 142

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150

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<210> 143

<211> 303

<212> PRT

<213> Homo sapiens

<400> 143

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Ala Ala Val Gln Ala Ser Pro Leu Gln Ala Leu Asp Phe Phe Gly Asn
35 40 45
Gly Pro Pro Val Asn Tyr Lys Thr Gly Asn Leu Tyr Leu Arg Gly Pro
50 55 60
Leu Lys Lys Ser Asn Ala Pro Leu Val Asn Val Thr Leu Tyr Tyr Glu
65 70 75 80
Ala Leu Cys Gly Gly Cys Arg Ala Phe Leu Ile Arg Glu Leu Phe Pro
85 90 95
Thr Trp Leu Leu Val Met Glu Ile Leu Asn Val Thr Ser Val Pro Tyr
100 105 110
Gly Asn Ala Gln Glu Gln Asn Val Ser Gly Arg Trp Glu Phe Lys Cys
115 120 125
Gln Leu Gly Glu Glu Glu Cys Lys Phe Asn Lys Val Glu Ala Cys Val
130 135 140
Leu Asp Glu Leu Asp Met Glu Leu Ala Phe Leu Thr Met Ser Gly Met
145 150 155 160
Ala Trp Lys Ser Leu Arg Thr Trp Arg Glu Val Cys His Tyr Ala Cys
165 170 175
Ser Ser Thr Pro Gln Gly Cys Arg Gln Asn Tyr His Gly Val Cys Asn
180 185 190
Gly Gly Pro Arg His Ala Ala His Ala Arg Gln Arg Pro Ala Asp Arg
195 200 205
Cys Ser Pro Ala Thr Ala Arg Val Cys Ala Leu Gly His Arg Gln Trp
210 215 220
Glu Thr Leu Gly Arg Ser Asp Pro Ala Pro Tyr Pro Cys Leu Pro Val
225 230 235 240
Val Pro Gly Gln Glu Ala Gly Cys Leu Pro Phe Leu Asn Gln Leu Pro
245 250 255
Pro Glu Cys Leu Leu Arg Val Leu Ala Gly Gly Leu Arg Arg Ala His
260 265 270
Gly Arg Arg Val Gly Thr Arg Leu Pro Ala Phe Phe Ser Asp Pro Asp
275 280 285
Pro Arg His Leu Leu Leu Thr Asn Trp Lys Ile Leu Cys Ile Pro
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<210> 144

<211> 1356
 <212> DNA
 <213> Homo sapiens

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<210> 145
 <211> 180
 <212> PRT
 <213> Homo sapiens

<400> 145
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 Cys Gly Gly Glu Leu Val Asp Thr Leu Gln Phe Val Cys Gly Asp Arg
 35 40 45
 Gly Phe Tyr Phe Ser Arg Pro Ala Ser Arg Val Ser Arg Arg Ser Arg
 50 55 60
 Gly Ile Val Glu Glu Cys Cys Phe Arg Ser Cys Asp Leu Ala Leu Leu
 65 70 75 80
 Glu Thr Tyr Cys Ala Thr Pro Ala Lys Ser Glu Arg Asp Val Ser Thr
 85 90 95
 Pro Pro Thr Val Leu Pro Asp Asn Phe Pro Arg Tyr Pro Val Gly Lys
 100 105 110
 Phe Phe Gln Tyr Asp Thr Trp Lys Gln Ser Thr Gln Arg Leu Arg Arg
 115 120 125
 Gly Leu Pro Ala Leu Leu Arg Ala Arg Arg Gly His Val Leu Ala Lys
 130 135 140
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 145 150 155 160
 Leu Pro Thr Gln Asp Pro Ala His Gly Gly Ala Pro Pro Glu Met Ala
 165 170 175
 Ser Asn Arg Lys

<210> 146
 <211> 3667
 <212> DNA
 <213> Homo sapiens

<400> 146

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<210> 147

<211> 556

<212> PRT

<213> Homo sapiens

<400> 147

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Gln Val Leu Leu Lys Ser Gly Tyr Ala Phe Val Asp Tyr Pro Asp Gln
35 40 45
Asn Trp Ala Ile Arg Ala Ile Glu Thr Leu Ser Gly Lys Val Glu Leu
50 55 60
His Gly Lys Ile Met Glu Val Asp Tyr Ser Val Ser Lys Lys Leu Arg
65 70 75 80
Ser Arg Lys Ile Gln Ile Arg Asn Ile Pro Pro His Leu Gln Trp Glu
85 90 95
Val Leu Asp Gly Leu Leu Ala Gln Tyr Gly Thr Val Glu Asn Val Glu
100 105 110
Gln Val Asn Thr Asp Thr Glu Thr Ala Val Val Asn Val Thr Tyr Ala
115 120 125
Thr Arg Glu Glu Ala Lys Ile Ala Met Glu Lys Leu Ser Gly His Gln
130 135 140
Phe Glu Asn Tyr Ser Phe Lys Ile Ser Tyr Ile Pro Asp Glu Glu Val
145 150 155 160
Ser Ser Pro Ser Pro Pro Gln Arg Ala Gln Arg Gly Asp His Ser Ser
165 170 175
Arg Glu Gln Gly His Ala Pro Gly Gly Thr Ser Gln Ala Arg Gln Ile
180 185 190
Asp Phe Pro Leu Arg Ile Leu Val Pro Thr Gln Phe Val Gly Ala Ile
195 200 205
Ile Gly Lys Glu Gly Leu Thr Ile Lys Asn Ile Thr Lys Gln Thr Gln
210 215 220
Ser Arg Val Asp Ile His Arg Lys Glu Asn Ser Gly Ala Ala Glu Lys
225 230 235 240
Pro Val Thr Ile His Ala Thr Pro Glu Gly Thr Ser Glu Ala Cys Arg
245 250 255
Met Ile Leu Glu Ile Met Gln Lys Glu Ala Asp Glu Thr Lys Leu Ala
260 265 270
Glu Glu Ile Pro Leu Lys Ile Leu Ala His Asn Gly Leu Val Gly Arg
275 280 285
Leu Ile Gly Lys Glu Gly Arg Asn Leu Lys Lys Ile Glu His Glu Thr
290 295 300

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154

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 325 330 335
 Ala Glu Ile Glu Ile Met Lys Lys Leu Arg Glu Ala Phe Glu Asn Asp
 340 345 350
 Met Leu Ala Val Asn Thr His Ser Gly Tyr Phe Ser Ser Leu Tyr Pro
 355 360 365
 His His Gln Phe Gly Pro Phe Pro His His His Ser Tyr Pro Glu Gln
 370 375 380
 Glu Ile Val Asn Leu Phe Ile Pro Thr Gln Ala Val Gly Ala Ile Ile
 385 390 395 400
 Gly Lys Lys Gly Ala His Ile Lys Gln Leu Ala Arg Phe Ala Gly Ala
 405 410 415
 Ser Ile Lys Ile Ala Pro Ala Glu Gly Pro Asp Val Ser Glu Arg Met
 420 425 430
 Val Ile Ile Thr Gly Pro Pro Glu Ala Gln Phe Lys Ala Gln Gly Arg
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 Ile Phe Gly Lys Leu Lys Glu Glu Asn Phe Phe Asn Pro Lys Glu Glu
 450 455 460
 Val Lys Leu Glu Ala His Ile Arg Val Pro Ser Ser Thr Ala Gly Arg
 465 470 475 480
 Val Ile Gly Lys Gly Gly Lys Thr Val Asn Glu Leu Gln Asn Leu Thr
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 Ser Ala Glu Val Ile Val Pro Arg Asp Gln Thr Pro Asp Glu Asn Glu
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 Glu Val Ile Val Arg Ile Ile Gly His Phe Phe Ala Ser Gln Thr Ala
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<210> 148

<211> 1475

<212> DNA

<213> Homo sapiens

<400> 148

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<210> 149

<211> 403

<212> PRT

<213> Homo sapiens

<400> 149

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Pro Asp Phe Tyr Asn Asp Trp Met Phe Ile Ala Lys His Leu Pro Asp
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Leu Ile Glu Ser Gly Gln Leu Arg Glu Arg Val Glu Lys Leu Asn Met
50 55 60
Leu Ser Ile Asp His Leu Thr Asp His Lys Ser Gln Arg Leu Ala Arg
65 70 75 80
Leu Val Leu Gly Cys Ile Thr Met Ala Tyr Val Trp Gly Lys Gly His
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Gly Asp Val Arg Lys Val Leu Pro Arg Asn Ile Ala Val Pro Tyr Cys
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Gln Leu Ser Lys Lys Leu Glu Leu Pro Pro Ile Leu Val Tyr Ala Asp
115 120 125
Cys Val Leu Ala Asn Trp Lys Lys Lys Asp Pro Asn Lys Pro Leu Thr
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Tyr Glu Asn Met Asp Val Leu Phe Ser Phe Arg Asp Gly Asp Cys Ser
145 150 155 160
Lys Gly Phe Phe Leu Val Ser Leu Leu Val Glu Ile Ala Ala Ala Ser
165 170 175
Ala Ile Lys Val Ile Pro Thr Val Phe Lys Ala Met Gln Met Gln Glu
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Arg Asp Thr Leu Leu Lys Ala Leu Leu Glu Ile Ala Ser Cys Leu Glu
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Lys Ala Leu Gln Val Phe His Gln Ile His Asp His Val Asn Pro Lys
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Ala Phe Phe Ser Val Leu Arg Ile Tyr Leu Ser Gly Trp Lys Gly Asn
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Pro Gln Leu Ser Asp Gly Leu Val Tyr Glu Gly Phe Trp Glu Asp Pro
245 250 255
Lys Glu Phe Ala Gly Gly Ser Ala Gly Gln Ser Ser Val Phe Gln Cys
260 265 270
Phe Asp Val Leu Leu Gly Ile Gln Gln Thr Ala Gly Gly Gly His Ala
275 280 285
Ala Gln Phe Leu Gln Asp Met Arg Arg Tyr Met Pro Pro Ala His Arg
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Asn Phe Leu Cys Ser Leu Glu Ser Asn Pro Ser Val Arg Glu Phe Val
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Leu Ser Lys Gly Asp Ala Gly Leu Arg Glu Ala Tyr Asp Ala Cys Val
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Lys Ala Leu Val Ser Leu Arg Ser Tyr His Leu Gln Ile Val Thr Lys
340 345 350

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156

Tyr Ile Leu Ile Pro Ala Ser Gln Gln Pro Lys Glu Asn Lys Thr Ser
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<210> 150
 <211> 2129
 <212> DNA
 <213> Homo sapiens

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<210> 151
 <211> 465
 <212> PRT
 <213> Homo sapiens

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 Thr Gly Ile Ser His Ser Glu Phe Leu His Arg Gln His Thr Glu Glu
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 245 250 255
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 260 265 270
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 305 310 315 320
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 340 345 350
 Trp Glu Glu Ser Val Leu Glu Pro Ala Leu Glu Ile Val Gln Ser Phe
 355 360 365
 Ile Gln Gly His Lys Pro Thr Ala Thr Pro Ile Lys Met Pro Tyr Asn
 370 375 380
 Glu Ala Glu Asn Lys Arg Ser Tyr His Leu Cys Asp Leu Cys Asp Arg
 385 390 395 400
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 405 410 415
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158

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<210> 152
<211> 2129
<212> DNA
<213> Homo sapiens

<400> 152

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<210> 153
<211> 467
<212> PRT
<213> Homo sapiens

<400> 153

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 Gly Glu Ile Val Ser Ala Asp Ser Met Gln Val Tyr Glu Gly Leu Asp
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 Ile Ile Thr Asn Lys Val Ser Ala Gln Glu Gln Arg Ile Cys Arg His
 65 70 75 80
 His Met Ile Ser Phe Val Asp Pro Leu Val Thr Asn Tyr Thr Val Val
 85 90 95
 Asp Phe Arg Asn Arg Ala Thr Ala Leu Ile Glu Asp Ile Phe Ala Arg
 100 105 110
 Asp Lys Ile Pro Ile Val Val Gly Gly Thr Asn Tyr Tyr Ile Glu Ser
 115 120 125
 Leu Leu Trp Lys Val Leu Val Asn Thr Lys Pro Gln Glu Met Gly Thr
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 Glu Lys Val Ile Asp Arg Lys Val Glu Leu Glu Lys Glu Asp Gly Leu
 145 150 155 160
 Val Leu His Lys Arg Leu Ser Gln Val Asp Pro Glu Met Ala Ala Lys
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 Leu His Pro His Asp Lys Arg Lys Val Ala Arg Ser Leu Gln Val Phe
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 Glu Glu Thr Gly Ile Ser His Ser Glu Phe Leu His Arg Gln His Thr
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 Glu Glu Gly Gly Gly Pro Leu Gly Gly Pro Leu Lys Phe Ser Asn Pro
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 Cys Ile Leu Trp Leu His Ala Asp Gln Ala Val Leu Asp Glu Arg Leu
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 Asp Lys Arg Val Asp Asp Met Leu Ala Ala Gly Leu Leu Glu Glu Leu
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 305 310 315
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 Ser Lys Trp Glu Glu Ser Val Leu Glu Pro Ala Leu Glu Ile Val Gln
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 Ser Phe Ile Gln Gly His Lys Pro Thr Ala Thr Pro Ile Lys Met Pro
 370 375 380
 Tyr Asn Glu Ala Glu Asn Lys Arg Ser Tyr His Leu Cys Asp Leu Cys
 385 390 395 400
 Asp Arg Ile Ile Ile Gly Asp Arg Glu Trp Ala Ala His Ile Lys Ser
 405 410 415
 Lys Ser His Leu Asn Gln Leu Lys Lys Arg Arg Arg Leu Asp Ser Asp
 420 425 430
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<210> 154
 <211> 4495
 <212> DNA
 <213> Homo sapiens

<400> 154

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<210> 157

<211> 769

<212> FRT

<213> Homo sapiens

<400> 157

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Ser Ser Asn Ala Ala Ser Cys Ala Arg Cys Leu Ala Leu Gly Pro Glu
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Cys Gly Trp Cys Val Gln Glu Asp Phe Ile Ser Gly Gly Ser Arg Ser
65 70 75 80
Glu Arg Cys Asp Ile Val Ser Asn Leu Ile Ser Lys Gly Cys Ser Val
85 90 95
Asp Ser Ile Glu Tyr Pro Ser Val His Val Ile Ile Pro Thr Glu Asn
100 105 110
Glu Ile Asn Thr Gln Val Thr Pro Gly Glu Val Ser Ile Gln Leu Arg
115 120 125
Pro Gly Ala Glu Ala Asn Phe Met Leu Lys Val His Pro Leu Lys Lys
130 135 140
Tyr Pro Val Asp Leu Tyr Tyr Leu Val Asp Val Ser Ala Ser Met His
145 150 155 160
Asn Asn Ile Glu Lys Leu Asn Ser Val Gly Asn Asp Leu Ser Arg Lys
165 170 175
Met Ala Phe Phe Ser Arg Asp Phe Arg Leu Gly Phe Gly Ser Tyr Val

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[illegible]

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		675					680					685				
Ile	Phe	Ile	Val	Thr	Phe	Leu	Ile	Gly	Leu	Leu	Lys	Val	Leu	Ile	Ile	
		690				695					700					
Arg	Gln	Val	Ile	Leu	Gln	Trp	Asn	Ser	Asn	Lys	Ile	Lys	Ser	Ser	Ser	
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Asp	Tyr	Arg	Val	Ser	Ala	Ser	Lys	Lys	Asp	Lys	Leu	Ile	Leu	Gln	Ser	
			725						730					735		
Val	Cys	Thr	Arg	Ala	Val	Thr	Tyr	Arg	Arg	Glu	Lys	Pro	Glu	Glu	Ile	
			740					745					750			
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Phe

<210> 158

<211> 3999

<212> DNA

<213> Homo sapiens

<400> 158

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<210> 159

<211> 624

<212> PRT

<213> Homo sapiens

<400> 159

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Ser Glu Lys Thr His Pro Lys Asp Tyr Pro Arg Arg Ala Asn His Trp
 40          45          50          55
Ser Ala Ile Ile Gly Gly Ser His Ser Lys Asn Tyr Val Leu Trp Glu
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Tyr Gly Gly Tyr Ala Ser Glu Gly Val Lys Gln Val Ala Glu Leu Gly
 80          85          90          95
Ser Pro Val Lys Met Glu Glu Ile Arg Gln Gln Ser Asp Glu Val
100          105          110          115
Leu Thr Val Ile Lys Ala Lys Ala Gln Trp Pro Ala Trp Gln Pro Leu
120          125          130          135
Asn Val Arg Ala Ala Pro Ser Ala Glu Phe Ser Val Asp Arg Thr Arg
140          145          150          155
His Leu Met Ser Phe Leu Thr Met Met Gly Pro Ser Pro Asp Trp Asn

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165	170	175
Gly Val Thr Tyr Glu Ser Pro Asn Lys Pro Thr Ile Pro Gln Glu Lys		
180	185	190
Ile Arg Pro Leu Thr Ser Leu Asp His Pro Gln Ser Pro Phe Tyr Asp		
195	200	205
Pro Glu Gly Gly Ser Ile Thr Gln Val Ala Arg Val Val Ile Glu Arg		
210	215	220
Ile Ala Arg Lys Gly Glu Gln Cys Asn Ile Val Pro Asp Asn Val Asp		
225	230	235
Asp Ile Val Ala Asp Leu Ala Pro Glu Glu Lys Asp Glu Asp Asp Thr		
245	250	255
Pro Glu Thr Cys Ile Tyr Ser Asn Trp Ser Pro Trp Ser Ala Cys Ser		
260	265	270
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Ala Gln Leu Asp Leu Ser Val Pro Cys Pro Asp Thr Gln Asp Phe Gln		
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Met Ser Glu Trp Ile Thr Trp Ser Pro Cys Ser Ile Ser Cys Gly Met		
325	330	335
Gly Met Arg Ser Arg Glu Arg Tyr Val Lys Gln Phe Pro Glu Asp Gly		
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355	360	365
Glu Glu Cys Ser Pro Ser Ser Cys Leu Met Thr Glu Trp Gly Glu Trp		
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Asp Glu Cys Ser Ala Thr Cys Gly Met Gly Met Lys Lys Arg His Arg		
385	390	395
Met Ile Lys Met Asn Pro Ala Asp Gly Ser Met Cys Lys Ala Glu Thr		
405	410	415
Ser Gln Ala Glu Lys Cys Met Met Pro Glu Cys His Thr Ile Pro Cys		
420	425	430
Leu Leu Ser Pro Trp Ser Glu Trp Ser Asp Cys Ser Val Thr Cys Gly		
435	440	445
Lys Gly Met Arg Thr Arg Gln Arg Met Leu Lys Ser Leu Ala Glu Leu		
450	455	460
Gly Asp Cys Asn Glu Asp Leu Glu Gln Val Glu Lys Cys Met Leu Pro		
465	470	475
Glu Cys Pro Ile Asp Cys Glu Leu Thr Glu Trp Ser Gln Trp Ser Glu		
485	490	495
Cys Asn Lys Ser Cys Gly Lys Gly His Val Ile Arg Thr Arg Met Ile		
500	505	510
Gln Met Glu Pro Gln Phe Gly Gly Ala Pro Cys Pro Glu Thr Val Gln		
515	520	525
Arg Lys Lys Cys Arg Ile Arg Lys Cys Leu Arg Asn Pro Ser Ile Gln		
530	535	540
Lys Leu Arg Trp Arg Glu Ala Arg Glu Ser Arg Arg Ser Glu Gln Leu		
545	550	555
Lys Glu Glu Ser Glu Gly Glu Gln Phe Pro Gly Cys Arg Met Arg Pro		
565	570	575
Trp Thr Ala Trp Ser Glu Cys Thr Lys Leu Cys Gly Gly Ile Gln		
580	585	590
Glu Arg Tyr Met Thr Val Lys Lys Arg Phe Lys Ser Ser Gln Phe Thr		

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<210> 161

<211> 888

<212> PRT

<213> Homo sapiens

<400> 161

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35 40 45
Leu Pro Lys Gln Tyr Leu Asp Val Ser Ser Gln Thr Asp Ile Ser Gly
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Ser Phe Gly Ile Asn Ser Asn Asn Gln Leu Ala Glu Lys Val Arg Leu
65 70 75 80
Arg Leu Arg Tyr Glu Glu Ala Lys Arg Arg Ile Ala Asn Leu Lys Ile
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Gln Leu Ala Lys Leu Asp Ser Glu Ala Trp Pro Gly Val Leu Asp Ser
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Glu Arg Asp Arg Leu Ile Leu Ile Asn Glu Lys Glu Glu Leu Leu Lys
115 120 125
Glu Met Arg Phe Ile Ser Pro Arg Lys Trp Thr Gln Gly Glu Val Glu
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Lys Arg Asn Gln Leu Val Arg Glu Leu Glu Glu Ala Thr Arg Gln Val
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210 215 220
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260 265 270
Cys Ile Thr Thr Ile His Glu Asp Glu Val Ala Lys Thr Gln Lys Ala
275 280 285
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[illegible]

174

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Lys Gly Glu Leu Gln Thr Asp Lys Met Met Arg Ala Ala Ala Lys Asp						
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Val His Arg Leu Arg Gly Gln Ser Cys Lys Glu Pro Pro Glu Val Gln						
	850		855		860	
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<210> 162

<211> 5794

<212> DNA

<213> Homo sapiens

<400> 162

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<210> 167

<211> 276

<212> PRT

<213> Homo sapiens

<400> 167

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 Leu Ala Lys Leu Leu Pro Leu Leu Met Ala Gln Leu Trp Ala Ala Glu
 20 25 30
 Ala Ala Leu Leu Pro Gln Asn Asp Thr Arg Leu Asp Pro Glu Ala Tyr
 35 40 45
 Gly Ala Pro Cys Ala Arg Gly Ser Gln Pro Trp Gln Val Ser Leu Phe
 50 55 60
 Asn Gly Leu Ser Phe His Cys Ala Gly Val Leu Val Asp Gln Ser Trp
 65 70 75 80
 Val Leu Thr Ala Ala His Cys Gly Asn Lys Pro Leu Trp Ala Arg Val
 85 90 95
 Gly Asp Asp His Leu Leu Leu Gln Gly Glu Gln Leu Arg Arg Thr
 100 105 110
 Thr Arg Ser Val Val His Pro Lys Tyr His Gln Gly Ser Gly Pro Ile
 115 120 125
 Leu Pro Arg Arg Thr Asp Glu His Asp Leu Met Leu Leu Lys Leu Ala
 130 135 140
 Arg Pro Val Val Pro Gly Pro Arg Val Arg Ala Leu Gln Leu Pro Tyr
 145 150 155 160
 Arg Cys Ala Gln Pro Gly Asp Gln Cys Gln Val Ala Gly Trp Gly Thr
 165 170 175
 Thr Ala Ala Arg Arg Val Lys Tyr Asn Lys Gly Leu Thr Cys Ser Ser
 180 185 190
 Ile Thr Ile Leu Ser Pro Lys Glu Cys Glu Val Phe Tyr Pro Gly Val
 195 200 205
 Val Thr Asn Asn Met Ile Cys Ala Gly Leu Asp Arg Gly Gln Asp Pro
 210 215 220
 Cys Gln Ser Asp Ser Gly Gly Pro Leu Val Cys Asp Glu Thr Leu Gln
 225 230 235 240
 Gly Ile Leu Ser Trp Gly Val Tyr Pro Cys Gly Ser Ala Gln His Pro
 245 250 255
 Ala Val Tyr Thr Gln Ile Cys Lys Tyr Met Ser Trp Ile Asn Lys Val
 260 265 270
 Ile Arg Ser Asn
 275

<210> 168

<211> 1506

<212> DNA

<213> Homo sapiens

<400> 168

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 agcccggggc aggggggggg gccagtgtgg tgacacacgc tgtagctgtc tccccgggtg 120
 gtgcctcgcg tctctctcgg ggacacagag gtccgcaggc agcacacaga gggacctacg 180
 ggcagctgtt ccttcccccg actcaagaat ccccgaggc ccggaggcct gcacaggag 240

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tctacacctc gggccacttg ctctgtggtg gggctcctat ccacccactg tgggtccctca 420
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aagatgaaga taagatgat acagtctcca tcaggcagtg gctgttgcaa agatttaaga 1440
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<210> 169

<211> 244

<212> PRT

<213> Homo sapiens

<400> 169

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Met Lys Lys Leu Met Val Val Leu Ser Leu Ile Ala Ala Ala Trp Ala
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 20          25          30
His Pro Tyr Gln Ala Ala Leu Tyr Thr Ser Gly His Leu Leu Cys Gly
 35          40          45
Gly Val Leu Ile His Pro Leu Trp Val Leu Thr Ala Ala His Cys Lys
 50          55          60
Lys Pro Asn Leu Gln Val Phe Leu Gly Lys His Asn Leu Arg Gln Arg
 65          70          75          80
Glu Ser Ser Gln Glu Gln Ser Ser Val Val Arg Ala Val Ile His Pro
 85          90          95
Asp Tyr Asp Ala Ala Ser His Asp Gln Asp Ile Met Leu Leu Arg Leu
100          105          110
Ala Arg Pro Ala Lys Leu Ser Glu Leu Ile Gln Pro Leu Pro Leu Glu
115          120          125
Arg Asp Cys Ser Ala Asn Thr Thr Ser Cys His Ile Leu Gly Trp Gly
130          135          140
Lys Thr Ala Asp Gly Asp Phe Pro Asp Thr Ile Gln Cys Ala Tyr Ile
145          150          155          160
His Leu Val Ser Arg Glu Glu Cys Glu His Ala Tyr Pro Gly Gln Ile
165          170          175
Thr Gln Asn Met Leu Cys Ala Gly Asp Glu Lys Tyr Gly Lys Asp Ser
180          185          190
Cys Gln Gly Asp Ser Gly Gly Pro Leu Val Cys Gly Asp His Leu Arg
195          200          205
Gly Leu Val Ser Trp Gly Asn Ile Pro Cys Gly Ser Lys Glu Lys Pro
210          215          220
Gly Val Tyr Thr Asn Val Cys Arg Tyr Thr Asn Trp Ile Gln Lys Thr

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225
Ile Gln Ala Lys

230

235

240

<210> 170
<211> 1641
<212> DNA
<213> Homo sapiens

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<400> 170
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cagggtgcgc tgagctccgc tgcgcccggc ggctctggca gcagcagcct ctacggcctc 180
ggcgctcgcg ggcgcgcggt ggccgtgcgc tctgcctatg ggggcccggt gggcgccggc 240
atccgcgagg tcaccattaa ccagagcctg ctggccccgc tgcggctgga cgcgcagccc 300
tcctccagc gggtgcgcga ggaggagagc gaggcagatc agaccctcaa caacaagttt 360
gcctccttca tcgacaagggt gcggtttctg gaggcagaga acaagctgtc ggagaccaag 420
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gccagattg ctggccttcg gggtcagctt gaggcactgc aggtggatgg gggcgccctg 540
gaggcgagc tgcgagcat gcaggatgtg gtggaggact tcaagaataa gtacgaagat 600
gaaattaaac gccgcacagc tgctgagaat gagtttgtg tgctgaagaa ggatgtggat 660
gtgccttaca cgagcaaggt ggagctggag gccaaagtg atgccctgaa tgatgacatc 720
aactctctca ggaccctcaa tgagacggag ttgacagagc tgcagtccca gatctccgac 780
acatctgtgg tgctgtccat ggacaacagt cgtccctgg accctggacg catcatcgct 840
gaggtcaagg cacagtatga ggagatggcc aaatgcagcc gggctgagg tgaagcctgg 900
taccagacca agtttgagac cctccagccc caggctggga agcatgggga cgcacctccg 960
aatacccgga atgagattc agagatgaac cgggccatcc agaggctgca ggctgagatc 1020
gacaacatca agaaccagcg tgccaagtgt gaggccgcca ttgccgaggc tgagagcgt 1080
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cacaatcaca agaagattcc cccctcgcc tccatgcctt ggtcccaaga cagtgagaca 1560
gtctggaaag tgatgtcaga atagcttcca ataaagcagc ctcatcttga ggctgagtg 1620
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<210> 171
<211> 469
<212> PRT
<213> Homo sapiens

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<400> 171
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1 5 10 15
Phe Ser Gly Arg Gly Ala Gln Val Arg Leu Ser Ser Ala Arg Pro Gly
20 25 30
Gly Leu Gly Ser Ser Ser Leu Tyr Gly Leu Gly Ala Ser Arg Pro Arg
35 40 45
Val Ala Val Arg Ser Ala Tyr Gly Gly Pro Val Gly Ala Gly Ile Arg
50 55 60
Glu Val Thr Ile Asn Gln Ser Leu Leu Ala Pro Leu Arg Leu Asp Ala
65 70 75 80
Asp Pro Ser Leu Gln Arg Val Arg Gln Glu Glu Ser Glu Gln Ile Lys
85 90 95

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Ala Leu Asn Asn Lys Phe Ala Ser Phe Ile Asp Lys Val Arg Phe Leu
 100 105 110
 Glu Gln Gln Asn Lys Leu Leu Glu Thr Lys Trp Thr Leu Leu Gln Glu
 115 120 125
 Gln Lys Ser Ala Lys Ser Ser Arg Leu Pro Asp Ile Phe Glu Ala Gln
 130 135 140
 Ile Ala Gly Leu Arg Gly Gln Leu Glu Ala Leu Gln Val Asp Gly Gly
 145 150 155 160
 Arg Leu Glu Gln Gly Leu Arg Thr Met Gln Asp Val Val Glu Asp Phe
 165 170 175
 Lys Asn Lys Tyr Glu Asp Glu Ile Asn Arg Arg Thr Ala Ala Glu Asn
 180 185 190
 Glu Phe Val Val Leu Lys Lys Asp Val Asp Ala Ala Tyr Met Ser Lys
 195 200 205
 Val Glu Leu Glu Ala Lys Val Asp Ala Leu Asn Asp Glu Ile Asn Phe
 210 215 220
 Leu Arg Thr Leu Asn Glu Thr Glu Leu Thr Glu Leu Gln Ser Gln Ile
 225 230 235 240
 Ser Asp Thr Ser Val Val Leu Ser Met Asp Asn Ser Arg Ser Leu Asp
 245 250 255
 Leu Asp Gly Ile Ile Ala Glu Val Lys Ala Gln Tyr Glu Glu Met Ala
 260 265 270
 Lys Cys Ser Arg Ala Glu Ala Glu Ala Trp Tyr Gln Thr Lys Phe Glu
 275 280 285
 Thr Leu Gln Ala Gln Ala Gly Lys His Gly Asp Asp Leu Arg Asn Thr
 290 295 300
 Arg Asn Glu Ile Ser Glu Met Asn Arg Ala Ile Gln Arg Leu Gln Ala
 305 310 315 320
 Glu Ile Asp Asn Ile Lys Asn Gln Arg Ala Lys Leu Glu Ala Ala Ile
 325 330 335
 Ala Glu Ala Glu Glu Cys Gly Glu Leu Ala Leu Lys Asp Ala Arg Ala
 340 345 350
 Lys Gln Glu Glu Leu Glu Ala Ala Leu Gln Arg Ala Lys Gln Asp Met
 355 360 365
 Ala Arg Gln Leu Arg Glu Tyr Gln Glu Leu Met Ser Val Lys Leu Ala
 370 375 380
 Leu Asp Ile Glu Ile Ala Thr Tyr Arg Lys Leu Leu Glu Gly Glu Glu
 385 390 395 400
 Ser Arg Leu Ala Gly Asp Gly Val Gly Ala Val Asn Ile Ser Val Met
 405 410 415
 Asn Ser Thr Gly Gly Ser Ser Ser Gly Gly Gly Ile Gly Leu Thr Leu
 420 425 430
 Gly Gly Thr Met Gly Ser Asn Ala Leu Ser Phe Ser Ser Ala Gly
 435 440 445
 Pro Gly Leu Leu Lys Ala Tyr Ser Ile Arg Thr Ala Ser Ala Ser Arg
 450 455 460
 Arg Ser Ala Arg Asp
 465

<210> 172

<211> 1640

<212> DNA

<213> Homo sapiens

<400> 172

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agggtgcgct  gagctccgct  cgccccggcg  gccttggcag  cagcagcctc  tacggcctcg  180
gcgcctcgcg  gccgcgcgtg  gccgtgcgct  ctgcctatgg  gggcccggtg  ggcccgcgca  240
tccgcgaggt  caccattaac  cagagcgctc  tggccccgct  gcgctgggac  gccgacccct  300
ccctccagcg  ggtgcgccag  gaggagagcg  agcagatcaa  gacccccaac  aacaagtgtg  360
cctccttcac  cgacaaggtg  cggtttcttg  agcagcagaa  caagctgctg  gagaccaagt  420
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acaatcacaa  gaagattccc  accctgcct  cccatgcctg  gtcccaagac  agtgagacag  1560
tctggaaagt  gatgtcagaa  tagcttccaa  taaagcagcc  tcattctgag  gctcgagtga  1620
tccaaaaaaa  aaaaaaaaaa  1640

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<210> 173

<211> 469

<212> PRT

<213> Homo sapiens

<400> 173

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Met Ser Ile His Phe Ser Ser Pro Val Phe Thr Ser Arg Ser Ala Ala
1          5          10          15
Phe Ser Gly Arg Gly Ala Gln Val Arg Leu Ser Ser Ala Arg Pro Gly
20          25          30
Gly Leu Gly Ser Ser Ser Leu Tyr Gly Leu Gly Ala Ser Arg Pro Arg
35          40          45
Val Ala Val Arg Ser Ala Tyr Gly Gly Pro Val Gly Ala Gly Ile Arg
50          55          60
Glu Val Thr Ile Asn Gln Ser Leu Leu Ala Pro Leu Arg Leu Asp Ala
65          70          75          80
Asp Pro Ser Leu Gln Arg Val Arg Gln Glu Glu Ser Glu Gln Ile Lys
85          90          95
Thr Leu Asn Asn Lys Phe Ala Ser Phe Ile Asp Lys Val Arg Phe Leu
100         105         110
Glu Gln Gln Asn Lys Leu Leu Glu Thr Lys Trp Thr Leu Leu Gln Glu
115         120         125
Gln Lys Ser Ala Lys Ser Ser Arg Leu Pro Asp Ile Phe Glu Ala Gln
130         135         140
Ile Ala Gly Leu Arg Gly Gln Leu Glu Ala Leu Gln Val Asp Gly Gly
145         150         155         160
Arg Leu Glu Ala Glu Leu Arg Ser Met Gln Asp Val Val Glu Asp Phe
165         170         175
Lys Asn Lys Tyr Glu Asp Glu Ile Asn Arg Arg Thr Ala Ala Glu Asn
180         185         190
Glu Phe Val Val Leu Lys Lys Asp Val Asp Ala Ala Tyr Met Ser Lys

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<210> 175

<211> 283

<212> PRT

<213> Homo sapiens

<400> 175

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Met Val Asn Tyr Ala Trp Ala Gly Arg Ser Gln Arg Lys Leu Trp Trp
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Arg Ser Val Ala Val Leu Thr Cys Lys Ser Val Val Arg Pro Gly Tyr
20 25 30
Arg Gly Gly Leu Gln Ala Arg Arg Ser Thr Leu Leu Lys Thr Cys Ala
35 40 45
Arg Ala Arg Ala Thr Ala Pro Gly Ala Met Lys Met Val Ala Pro Trp
50 55 60
Thr Arg Phe Tyr Ser Asn Ser Cys Cys Leu Cys Cys His Val Arg Thr
65 70 75 80
Gly Thr Ile Leu Leu Gly Val Trp Tyr Leu Ile Ile Asn Ala Val Val
85 90 95
Leu Leu Ile Leu Leu Ser Ala Leu Ala Asp Pro Asp Gln Tyr Asn Phe
100 105 110
Ser Ser Ser Glu Leu Gly Gly Asp Phe Glu Phe Met Asp Asp Ala Asn
115 120 125
Met Cys Ile Ala Ile Ala Ile Ser Leu Leu Met Ile Leu Ile Cys Ala
130 135 140
Met Ala Thr Tyr Gly Ala Tyr Lys Gln Arg Ala Ala Trp Ile Ile Pro
145 150 155 160
Phe Phe Cys Tyr Gln Ile Phe Asp Phe Ala Leu Asn Met Leu Val Ala
165 170 175
Ile Thr Val Leu Ile Tyr Pro Asn Ser Ile Gln Glu Tyr Ile Arg Gln
180 185 190
Leu Pro Pro Asn Phe Pro Tyr Arg Asp Asp Val Met Ser Val Asn Pro
195 200 205
Thr Cys Leu Val Leu Ile Ile Leu Leu Phe Ile Ser Ile Ile Leu Thr
210 215 220
Phe Lys Gly Tyr Leu Ile Ser Cys Val Trp Asn Cys Tyr Arg Tyr Ile

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[illegible]

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<210> 176
<211> 597
<212> DNA
<213> Homo sapiens
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<210> 177
<211> 198
<212> PRT
<213> Homo sapiens
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[illegible]

188

<210> 178
 <211> 1518
 <212> DNA
 <213> Homo sapiens

<400> 178
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 ccccgggggc gccctgaccg gggagcagct cctgggcagc ctgctgcgcg agctgcagct 180
 caaagagggt cccaacctgg acagggccga catggaggag ctggtcatcc ccaccacagt 240
 gagggcccaag taegtggccc tgcctgcagcg cagccacggg gaccgctccc gcggaaaagg 300
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 cctgctggtg ttccgcatgg agcagcggct gcccccac acgcagctgg tgcaggccgt 420
 gctgoggctc ttccaggagc cggccccaa gccgcgcgtg caccaggcag ggcggctgtc 480
 cccgcgcagc gcccgggccc gggtgaccgt cgagtggctg cgctccgcg acgacggctc 540
 caaccgcacc tccctcatcg actccaggct ggtgtccgtg caccagagcg gctggaaggc 600
 cttcgacgtg accgagggcg tgaacttctg gcagcagctg agccggcccc ggcagccgct 660
 gctgctacag gtgtcggtgc agagggagca tctgggcccg ctggcgctccg gcgcccacaa 720
 gctgtgccgc ttgcctcgc agggggcgcc agccgggctt ggggagcccc agctggagct 780
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<210> 179
 <211> 366
 <212> PRT
 <213> Homo sapiens

<400> 179
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 1 5 10 15
 Ser Pro Gly Ala Ala Leu Thr Gly Glu Gln Leu Leu Gly Ser Leu Leu
 20 25 30
 Arg Gln Leu Gln Leu Lys Glu Val Pro Thr Leu Asp Arg Ala Asp Met
 35 40 45
 Glu Glu Leu Val Ile Pro Thr His Val Arg Ala Gln Tyr Val Ala Leu
 50 55 60
 Leu Gln Arg Ser His Gly Asp Arg Ser Arg Gly Lys Arg Phe Ser Gln
 65 70 75 80
 Ser Phe Arg Glu Val Ala Gly Arg Phe Leu Ala Leu Glu Ala Ser Thr
 85 90 95
 His Leu Leu Val Phe Gly Met Glu Gln Arg Leu Pro Pro Asn Ser Glu
 100 105 110
 Leu Val Gln Ala Val Leu Arg Leu Phe Gln Glu Pro Val Pro Lys Ala
 115 120 125
 Ala Leu His Arg His Gly Arg Leu Ser Pro Arg Ser Ala Arg Ala Arg

130	135	140
Val Thr Val Glu Trp Leu Arg Val Arg Asp Asp Gly Ser Asn Arg Thr		
145	150	155
Ser Leu Ile Asp Ser Arg Leu Val Ser Val His Glu Ser Gly Trp Lys		
	165	170
Ala Phe Asp Val Thr Glu Ala Val Asn Phe Trp Gln Gln Leu Ser Arg		
	180	185
Pro Arg Gln Pro Leu Leu Leu Gln Val Ser Val Gln Arg Glu His Leu		
	195	200
Gly Pro Leu Ala Ser Gly Ala His Lys Leu Val Arg Phe Ala Ser Gln		
	210	215
Gly Ala Pro Ala Gly Leu Gly Glu Pro Gln Leu Glu Leu His Thr Leu		
	225	230
Asp Leu Gly Asp Tyr Gly Ala Gln Gly Asp Cys Asp Pro Glu Ala Pro		
	245	250
Met Thr Glu Gly Thr Arg Cys Cys Arg Gln Glu Met Tyr Ile Asp Leu		
	260	265
Gln Gly Met Lys Trp Ala Glu Asn Trp Val Leu Glu Pro Pro Gly Phe		
	275	280
Leu Ala Tyr Glu Cys Val Gly Thr Cys Arg Gln Pro Pro Glu Ala Leu		
	290	295
Ala Phe Lys Trp Pro Phe Leu Gly Pro Arg Gln Cys Ile Ala Ser Glu		
	305	310
Thr Asp Ser Leu Pro Met Ile Val Ser Ile Lys Glu Gly Gly Arg Thr		
	325	330
Arg Pro Gln Val Val Ser Leu Pro Asn Met Arg Val Gln Lys Cys Ser		
	340	345
Cys Ala Ser Asp Gly Ala Leu Val Pro Arg Arg Leu Gln Pro		
	355	360

<210> 180

<211> 444

<212> DNA

<213> Homo sapiens

<400> 180

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aattctagaa gtccaaatca ctcatgtgtt gtgaaagctg agctcacagc aaaacaagcc 60
accatgaagc tgtcggtgtg tctcctgctg gtacagctgg cctctgtgtg ctaccaggcc 120
aatgcggagt tctgcccagc tcttgtttct gagctgttag acttcttctt cattagttaa 180
cctctgttca agttaagtct tgccaaattt gatgccctc cggaagctgt tgcagccaag 240
taggagtgta agagatgcac ggatcagatg tcccttcaga aacgaagcct cattgcggaa 300
gtcctgtgtg aaatattgaa gaaatgtagt gtgtgacatg taaaaacttt catcctgggt 360
tccactgtct ttcaatgaca cctgatctt cactgcagaa tgtaaagggt tcaacgtctt 420
ggtttaataa atcattgtct ctac

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<210> 181

<211> 90

<212> PRT

<213> Homo sapiens

<400> 181

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Met Lys Leu Ser Val Cys Leu Leu Leu Thr Leu Ala Leu Cys Cys
1          5          10          15
Tyr Gln Ala Asn Ala Glu Phe Cys Pro Ala Leu Val Ser Glu Leu Leu
20          25          30
Asp Phe Phe Phe Ile Ser Glu Pro Leu Phe Lys Leu Ser Leu Ala Lys
35          40          45

```

190

Phe Asp Ala Pro Pro Glu Ala Val Ala Ala Lys Leu Gly Val Lys Arg
 50 55 60
 Cys Thr Asp Gln Met Ser Leu Gln Lys Arg Ser Leu Ile Ala Glu Val
 65 70 75 80
 Leu Val Lys Ile Leu Lys Lys Cys Ser Val
 85 90

<210> 182

<211> 754

<212> DNA

<213> Homo sapiens

<400> 182

ggagtatgag atgaaacgaa tggcagagaa tgagctgagc cggtcagtaa atgagtttct 60
 gtccaagctg caagatgacc tcaaggaggc aatgaatact atgatgtgta gccgatgccca 120
 aggaaagcat aggaggtttg aaatggaccg ggaacctaa agtgccagat actgtgctga 180
 gtgtaatagg ctgcacacctg ctgagggaagg agacttttgg gcagagtcaa gcatgttggg 240
 cctcaagatc acctactttg cactgatgga tggaaagggtg tatgacatca cagagtgggc 300
 tggatgccag cgtgtaggta tctcccaga taccacaga gtcccctatc acatctcatt 360
 tggttctcgg attocaggca ccagaggcgc gcagagagcc accccagatg cccctcctgc 420
 tgatcttcag gattttcttga gtcggatctt tcaagtacc ccagggcaga tgccaatggg 480
 aacttctttg cagctctcca gctgcccctt ggagccgctg cagcctctaa gcccaacagc 540
 acagtaccga agggagaagc caaacctaa cggcggaaga aagtgaggag gcccttccaa 600
 cgttgatgcc ccttctcttt cctcaaatca atgtcaggga gtcaaaaggg ctgtagcaca 660
 gcatggagtt tgatttatcc ctctccccc aacacctagg aactgaatct ttttcttttt 720
 attttttgag atggagtctt gctctgttgc ccag 754

<210> 183

<211> 191

<212> FRT

<213> Homo sapiens

<400> 183

Met Lys Arg Met Ala Glu Asn Glu Leu Ser Arg Ser Val Asn Glu Phe
 1 5 10 15
 Leu Ser Lys Leu Gln Asp Asp Leu Lys Glu Ala Met Asn Thr Met Met
 20 25 30
 Cys Ser Arg Cys Gln Gly Lys His Arg Arg Phe Glu Met Asp Arg Glu
 35 40 45
 Pro Lys Ser Ala Arg Tyr Cys Ala Glu Cys Asn Arg Leu His Pro Ala
 50 55 60
 Glu Glu Gly Asp Phe Trp Ala Glu Ser Ser Met Leu Gly Leu Lys Ile
 65 70 75 80
 Thr Tyr Phe Ala Leu Met Asp Gly Lys Val Tyr Asp Ile Thr Glu Trp
 85 90 95
 Ala Gly Cys Gln Arg Val Gly Ile Ser Pro Asp Thr His Arg Val Pro
 100 105 110
 Tyr His Ile Ser Phe Gly Ser Arg Ile Pro Gly Thr Arg Gly Arg Gln
 115 120 125
 Arg Ala Thr Pro Asp Ala Pro Pro Ala Asp Leu Gln Asp Thr Leu Ser
 130 135 140
 Arg Ile Phe Gln Val Pro Pro Gly Gln Met Pro Met Gly Thr Ser Leu
 145 150 155 160
 Gln Leu Leu Ser Leu Pro Leu Glu Pro Leu Gln Pro Leu Ser Pro Thr
 165 170 175
 Ala Gln Tyr Pro Arg Glu Lys Pro Asn Leu Ser Gly Gly Arg Lys
 180 185 190

<210> 184
 <211> 2511
 <212> DNA
 <213> Homo sapiens

<400> 184
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 ggccgatggc gcaagaggtac gncgatctac ccattacgg gggcatggat gggataggca 120
 tccctccac gatgtatgg gaccggcatg cagccaggtc catgcagccg gtcaccacc 180
 tgaaccacgg gcctcctctg cactcgcatc agtaccgca cacagctcat accaaccgca 240
 tggccccacg catgggctcc tctgtcaatg acgctttaa gagagataaa gatgccattt 300
 atggacccc cctcttccct ctcttagcac tgaattttga gaattgtgaa ttagtacttt 360
 gtaccccccg cgagccgggg gtggcgggcg gggacgtctg ctctgcagag tcattcaatg 420
 aagatatagc cgtgttcgcc aaacagattc ggcagaaaa acctctattt tctttcaatc 480
 cagaactgga taacttgatg attcaagcca tacaagtatt aaggtttcat ctattggaat 540
 tagagaaggt acacgaatta tgtgacaatt tctgccacgg gtatattagc tgtttgaaag 600
 gtaaaatggc tatcgatttg gtgatagacg atagagaagg aggatcaaaa tcagacagtg 660
 aagatataac aagatcagca aatctaactg accagccctc ttggaacaga gatcatgatg 720
 acacggcctc tactcgttca ggaggaaacc caggcccttc cagcgggtggc cacacgtcac 780
 acagtgggga caacagcagc gagcaaggtg atggcttggg caacagtgtg gcttccccca 840
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 taatggacgg tcaagacat atgggaatta gagcaccagg acctatgagt ggaatgggca 1200
 tgaatatggg catggagggg cagtggcact acatgtaac ttcatctagt taacaaactc 1260
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 ttcttaatac nggagacca acnatgagtg gacnagtcac ggcattatgc gctcagtacg 1560
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 ctatataaga cattaaagga acaaagagtg aaatatgtga aatgctatta tactgttctc 1800
 catatctagt tggttcttat agatttttta aaaaattttc caactatgtc ccaactatgt 1860
 tggttgttct catagctctt cacttctctc agagcctccc ttacattaaa aagccttaca 1920
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 atcaggcaga agaattctt ttctcgccta ggatttcagc catgcgcggc ctctctctct 2040
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 ttoatttaact caccattatt gaattggcct gaacagatgt aaatcggaag ggaatggaaa 2160
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 catgtgtgta tttttcata gtcccacctt ggagcattta tgtagacatt gtaanaaat 2460
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<210> 185
 <211> 390
 <212> PRT
 <213> Homo sapiens

<400> 185
 Met Ala Gln Arg Tyr Asp Asp Leu Pro His Tyr Gly Gly Met Asp Gly

192

1	5	10	15
Val Gly Ile	Pro Ser Thr Met Tyr	Gly Asp Pro His Ala Ala	Arg Ser
20		25	30
Met Gln Pro	Val His His Leu Asn His	Gly Pro Pro Leu His	Ser His
35		40	45
Gln Tyr Pro	His Thr Ala His Thr Asn Ala	Met Ala Pro Ser	Met Gly
50		55	60
Ser Ser Val	Asn Asp Ala Leu Lys Arg	Asp Lys Asp Ala Ile Tyr	Gly
65		70	75
His Pro Leu	Phe Pro Leu Leu Ala Leu Ile	Phe Glu Lys Cys	Glu Leu
85		90	95
Ala Thr Cys	Thr Pro Arg Glu Pro Gly	Val Ala Gly Gly Asp	Val Cys
100		105	110
Ser Ser Glu	Ser Phe Asn Glu Asp Ile	Ala Val Phe Ala Lys	Gln Ile
115		120	125
Arg Ala Glu	Lys Pro Leu Phe Ser Ser	Asn Pro Glu Leu Asp	Asn Leu
130		135	140
Met Ile Gln	Ala Ile Gln Val Leu Arg	Phe His Leu Leu Glu	Leu Glu
145		150	155
Lys Val His	Glu Leu Cys Asp Asn Phe	Cys His Arg Tyr Ile	Ser Cys
165		170	175
Leu Lys Gly	Lys Met Pro Ile Asp Leu	Val Ile Asp Asp Arg	Glu Gly
180		185	190
Gly Ser Lys	Ser Asp Ser Glu Asp Ile	Thr Arg Ser Ala Asn	Leu Thr
195		200	205
Asp Gln Pro	Ser Trp Asn Arg Asp His	Asp Asp Thr Ala Ser	Thr Arg
210		215	220
Ser Gly Gly	Thr Pro Gly Pro Ser Ser	Gly Gly His Thr Ser	His Ser
225		230	235
Gly Asp Asn	Ser Ser Glu Gln Gly Asp	Gly Leu Asp Asn Ser	Val Ala
245		250	255
Ser Pro Ser	Thr Gly Asp Asp Asp Asp	Pro Asp Lys Asp Lys	Arg
260		265	270
His Lys Lys	Arg Gly Ile Phe Pro Lys	Val Ala Thr Asn Ile	Met Arg
275		280	285
Ala Trp Leu	Phe Gln His Leu Thr His	Pro Tyr Pro Ser Glu	Gln
290		295	300
Lys Lys Gln	Leu Ala Gln Asp Thr Gly	Leu Thr Ile Leu Gln	Val Asn
305		310	315
Asn Trp Phe	Ile Asn Ala Arg Arg Arg	Ile Val Gln Pro Met	Ile Asp
325		330	335
Gln Ser Asn	Arg Ala Val Ser Gln Gly	Thr Pro Tyr Asn Pro	Asp Gly
340		345	350
Gln Pro Met	Gly Gly Phe Val Met Asp	Gly Gln Gln His Met	Gly Ile
355		360	365
Arg Ala Pro	Gly Pro Met Ser Gly Met	Gly Met Asn Met Gly	Met Glu
370		375	380
Gly Gln Trp	His Tyr Met		
385	390		

<210> 186

<211> 517

<212> DNA

<213> Homo sapiens

<400> 186

cctccacagc aacttccttg atccctgcc aacacagaca gcagccgcct 60

193

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ttctggctgc  aaactcctgg  aggacatggg  tgaagaagacc  atcaattccg  acatatctat  180
acctgaatac  aaagagcttc  ttcaagagtt  catagacagt  gatgcccgct  cagaggctat  240
ggggaattc  aagcagtgtt  tctccaacca  gtcacataga  actctgaaaa  actttggact  300
gatgatgcac  acagtgtaac  acagcatttg  gtgtaatatg  aagagtaatt  aactttacc  360
aaggcgtttg  gctcagaggg  ctacagacta  tggccagAAC  tcatctgttg  attgctagaa  420
accacttttc  tttctgtgt  tgtcttttta  tgtggaaact  gctagacaac  tgttgaaacc  480
tcaaatctat  ttccatttca  ataactaact  gcaaatc  517

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<210> 187

<211> 95

<212> PRT

<213> Homo sapiens

<400> 187

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Met Lys Leu Leu Met Val Leu Met Leu Ala Ala Leu Leu Leu His Cys
 1             5             10             15
Tyr Ala Asp Ser Gly Cys Lys Leu Leu Glu Asp Met Val Glu Lys Thr
      20             25
Ile Asn Ser Asp Ile Ser Ile Pro Glu Tyr Lys Glu Leu Leu Gln Glu
      35             40             45
Phe Ile Asp Ser Asp Ala Ala Ala Glu Ala Met Gly Lys Phe Lys Gln
      50             55             60
Cys Phe Leu Asn Gln Ser His Arg Thr Leu Lys Asn Phe Gly Leu Met
      65             70             75             80
Met His Thr Val Tyr Asp Ser Ile Trp Cys Asn Met Lys Ser Asn
      85             90             95

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<210> 188

<211> 2048

<212> DNA

<213> Homo sapiens

<400> 188

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aaaagtggcc  ccgcgacgcg  gagcctgagg  attctgcaca  aaagaggtgc  ccaaaatgaa  180
gacctgatg  cgccatggct  tggcagtggt  tttagcgctc  accaccatgt  gccaccgctt  240
gttgctagtg  tacagcagcc  tcggcgccca  gaaggagcgg  ccccccgcag  agcagcagca  300
cagcagcaaa  cagcagcagc  aggcgtcgcc  caccgcgagc  tcgcagccgg  cggcgagagag  360
cagcaccag  cagcgcgccg  gggctccccc  gggaccgcgg  ccactggacg  gatccctcgg  420
agtggcgag  cacaagcccc  tgaatatgca  ctgcagggac  tgtgccctgg  tgaccagctc  480
agggcactgt  ctgcacagtc  ggcaaggctc  ccagattgac  cagacagagt  gtgctatccg  540
catgaatgac  gcccccacac  gcggctatgg  cgttgacgtg  ggcaatcgca  ccagctcga  600
ggtcatcgcg  cattccagca  tccagaggat  cctccgcaac  cgccatgacc  tgcctcaact  660
gagccagggc  accgtgttca  tcttctgggg  ccccgacgag  tacatggggc  gggcagggca  720
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catgattact  cgccacaaga  tgctgcagtt  tgatgagctc  ttcaagcagg  agactggcaa  840
agacaggaag  atatccaaca  ctggctcag  cactggctgg  ttacaatga  caattgcaact  900
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caatcacctc  tcagtacctt  atcattatta  tgaacctttt  ggacctgatg  aatgtacaat  1020
tgacctctcc  gatgagcgag  gacgcaaggg  cagtcatcac  cgctttatca  cagagaaacg  1080
agtctttaag  aactgggcac  ggacattcaa  tattcacttt  ttccaaccag  actggaaacc  1140
agaatcactt  gctataaatc  atcctgagaa  taaacctgtg  ttctaaggaa  tgagcatgcc  1200
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cagacaggaa  aggtagagag  aaaaacagct  cactctcag  gaagtaccat  ggacagagcg  1320
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tctaataagaa tgggtgtccccc ttcaatgggtg ttacotttagg agctgaacat tcaattcagt 1440
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aagcaactca acaatattag ttgcaattcct ttatagacat accatgtcaa agacgttttt 1560
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accttccata agcaaatgtc caatatttat ttattgagag ttttttagtg caatctgggc 1740
cagtattttt atagattatg attatgtggt aatttatcct tctaactctt ttaactctga 1800
atgatgtgtg gaaatggcct agaattaggt tactctgttc acaatgtcca ttgttagcat 1860
gcaatttggt tttgacttgg aagtgttgtg ttgtattttt tgaaccctca ggcttcagga 1920
aaactgtctt tttgtaaaaa gaalagcgat gacattttct aatgtgcaga aatgttccaa 1980
aaggacaaaa ttgaaaacca aaaactatgt tattaataca aaaaaaatgt aaaaaaaa 2040
aaaaaaa 2048

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<210> 189

<211> 336

<212> PRT

<213> Homo sapiens

<400> 189

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Met Lys Thr Leu Met Arg His Gly Leu Ala Val Cys Leu Ala Leu Thr
1 5 10 15
Thr Met Cys Thr Ser Leu Leu Leu Val Tyr Ser Ser Leu Gly Gly Gln
20 25 30
Lys Glu Arg Pro Pro Gln Gln Gln Gln Gln Gln Gln Gln Gln Gln
35 40 45
Gln Ala Ser Ala Thr Gly Ser Ser Gln Pro Ala Ala Glu Ser Ser Thr
50 55 60
Gln Gln Arg Pro Gly Val Pro Ala Gly Pro Arg Pro Leu Asp Gly Tyr
65 70 75 80
Leu Gly Val Ala Asp His Lys Pro Leu Lys Met His Cys Arg Asp Cys
85 90 95
Ala Leu Val Thr Ser Ser Gly His Leu Leu His Ser Arg Gln Gly Ser
100 105 110
Gln Ile Asp Gln Thr Glu Cys Val Ile Arg Met Asn Asp Ala Pro Thr
115 120 125
Arg Gly Tyr Gly Arg Asp Val Gly Asn Arg Thr Ser Leu Arg Val Ile
130 135 140
Ala His Ser Ser Ile Gln Arg Ile Leu Arg Asn Arg His Asp Leu Leu
145 150 155 160
Asn Val Ser Gln Gly Thr Val Phe Ile Phe Trp Gly Pro Ser Ser Tyr
165 170 175
Met Arg Arg Asp Gly Lys Gly Gln Val Tyr Asn Asn Leu His Leu Leu
180 185 190
Ser Gln Val Leu Pro Arg Leu Lys Ala Phe Met Ile Thr Arg His Lys
195 200 205
Met Leu Gln Phe Asp Glu Leu Phe Lys Gln Glu Thr Gly Lys Asp Arg
210 215 220
Lys Ile Ser Asn Thr Trp Leu Ser Thr Gly Trp Phe Thr Met Thr Ile
225 230 235 240
Ala Leu Glu Leu Cys Asp Arg Ile Asn Val Tyr Gly Met Val Pro Pro
245 250 255
Asp Phe Cys Arg Asp Pro Asn His Pro Ser Val Pro Tyr His Tyr Tyr
260 265 270
Glu Pro Phe Gly Pro Asp Glu Cys Thr Met Tyr Leu Ser His Glu Arg
275 280 285
Gly Arg Lys Gly Ser His His Arg Phe Ile Thr Glu Lys Arg Val Phe
290 295 300
Lys Asn Trp Ala Arg Thr Phe Asn Ile His Phe Phe Gln Pro Asp Trp

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305 310 315 320
Lys Pro Glu Ser Leu Ala Ile Asn His Pro Glu Asn Lys Pro Val Phe
 325 330 335

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<210> 190
<211> 1078
<212> DNA
<213> Homo sapiens
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gtccgaacgg	ctcaggacta	tctcaagaa	ttttattctt	atgactcaga	aacaaaaaa	180
gcgaacggt	tagaagccaa	actcaaggag	atgcgaataa	tctltggcct	acctataact	240
ggaatgttaa	actccgcgtt	catagaataa	ctcgagaagc	ccagatgtgtc	agtgccagat	300
tgtcgaagat	actccactat	tccaataatg	ccaaataatga	tctccaaagt	gtgtaccact	360
aggatcgtgt	catatactat	agacatccgc	catattacac	tggatcgatt	agtgctcaaa	420
gcttttaaaa	tgtggggcaa	agactatccc	ctgtaatttc	ggaaagtgtc	atcggggaact	480
ctcgacatca	tgatltgctt	tgcgcggaga	gctcatcggg	gctctatccc	attttagtgt	540
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cgagaacatc	catctcatca	tctcattgat	tgtatatcat	ctgttccaaa	tcgaagtga	900
taagcaactg	tcttccaact	cattttagcaa	tattgtacaa	cttlttlat	cgacttggtt	960
tttcaatcgt	tcttcaactc	tttatitggt	aaactcctaa	atgtgtgtac	tgtgtcttat	1020
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<210> 191
<211> 267
<212> PRT
<213> Homo sapiens
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Met	Arg	Leu	Thr	Val	Leu	Cys	Ala	Val	Cys	Leu	Leu	Pro	Gly	Ser	Leu
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Ala	Leu	Pro	Leu	Pro	Gln	Glu	Ala	Gly	Gly	Met	Ser	Glu	Leu	Gln	Trp
			20					25					30		
Glu	Gln	Ala	Gln	Asp	Tyr	Leu	Lys	Arg	Phe	Tyr	Leu	Tyr	Asp	Ser	Glu
			35				40					45			
Thr	Lys	Asn	Ala	Asn	Ser	Leu	Glu	Ala	Lys	Leu	Lys	Glu	Met	Gln	Lys
			50			55					60				
Phe	Phe	Gly	Leu	Pro	Ile	Thr	Gly	Met	Leu	Asn	Ser	Arg	Val	Ile	Glu
65					70				75					80	
Ile	Met	Gln	Lys	Pro	Arg	Cys	Gly	Val	Pro	Asp	Val	Ala	Glu	Tyr	Ser
				85					90					95	
Leu	Phe	Pro	Asn	Ser	Pro	Lys	Trp	Thr	Ser	Lys	Val	Val	Thr	Tyr	Arg
			100					105					110		
Ile	Val	Ser	Tyr	Thr	Arg	Asp	Leu	Pro	His	Ile	Thr	Val	Asp	Arg	Leu
				115			120					125			
Val	Ser	Lys	Ala	Leu	Asn	Met	Trp	Gly	Lys	Glu	Ile	Pro	Leu	His	Phe
			130			135					140				
Arg	Lys	Val	Val	Trp	Gly	Thr	Ala	Asp	Ile	Met	Ile	Gly	Phe	Ala	Arg
145					150				155					160	
Gly	Ala	His	Gly	Asp	Ser	Tyr	Pro	Phe	Asp	Gly	Pro	Gly	Asn	Thr	Leu
				165					170				175		

Ala His Ala Phe Ala Pro Gly Thr Gly Leu Gly Gly Asp Ala His Phe
 180 185 190
 Asp Glu Asp Glu Arg Trp Thr Asp Gly Ser Ser Leu Gly Ile Asn Phe
 195 200 205
 Leu Tyr Ala Ala Thr His Glu Leu Gly His Ser Leu Gly Met Gly His
 210 215 220
 Ser Ser Asp Pro Asn Ala Val Met Tyr Pro Thr Tyr Gly Asn Gly Asp
 225 230 235 240
 Pro Gln Asn Phe Lys Leu Ser Gln Asp Asp Ile Lys Gly Ile Gln Lys
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 Leu Tyr Gly Lys Arg Ser Asn Ser Arg Lys Lys
 260 265

<210> 192

<211> 2217

<212> DNA

<213> Homo sapiens

<400> 192

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tctgtggga      ccccccgcct  cggcagccct  ctggtctcgc  tcttcagcct  cggatggggt  180
cagcctctcga      ggaccctggc  tggagagaca  gggcaggagg  ctgcacccct  ggacggagtc  240
ctggccaacc      cacctaacat  ttccagccct  tcccctcgcc  aactccttgg  ctccccgtgt  300
cgaagatgtc      ccggcctgag  caccggagct  gtccgggagc  tggctgtggc  ctggcacacg  360
cgaagatgtc      agctctcaac  agagcagctg  cgtctgtctg  ctaccggctg  ctctgagccc  420
cccgaggacc      tggacgcccc  cccattggac  ctgctgctat  tcctcaacc  agatcgcttc  480
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<210> 193
 <211> 702
 <212> PRT
 <213> Homo sapiens

<400> 193

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 20           25           30
Pro Ser Arg Thr Leu Ala Gly Glu Thr Gly Gln Glu Ala Ala Pro Leu
 35           40           45
Asp Gly Val Leu Ala Asn Pro Pro Asn Ile Ser Ser Leu Ser Pro Arg
 50           55           60
Gln Leu Leu Gly Phe Pro Cys Ala Glu Val Ser Gly Leu Ser Thr Glu
 65           70           75
Arg Val Arg Glu Leu Ala Val Ala Leu Ala Gln Lys Asn Val Lys Leu
 85           90           95
Ser Thr Glu Gln Leu Arg Cys Leu Ala His Arg Leu Ser Glu Pro Pro
100          105          110
Glu Asp Leu Asp Ala Leu Pro Leu Asp Leu Leu Phe Leu Asn Pro
115          120          125
Asp Ala Phe Ser Gly Pro Gln Ala Cys Thr Arg Phe Phe Ser Arg Ile
130          135          140
Thr Lys Ala Asn Val Asp Leu Leu Pro Arg Gly Ala Pro Glu Arg Gln
145          150          155
Arg Leu Leu Pro Ala Ala Leu Ala Cys Trp Gly Val Arg Gly Ser Leu
165          170          175
Leu Ser Glu Ala Asp Val Arg Ala Leu Gly Gly Leu Ala Cys Asp Leu
180          185          190
Pro Gly Arg Phe Val Ala Glu Ser Ala Glu Val Leu Leu Pro Arg Leu
195          200          205
Val Ser Cys Pro Gly Pro Leu Asp Gln Asp Gln Gln Glu Ala Ala Arg
210          215          220
Ala Ala Leu Gln Gly Gly Gly Pro Pro Tyr Gly Pro Pro Ser Thr Trp
225          230          235
Ser Val Ser Thr Met Asp Ala Leu Arg Gly Leu Leu Pro Val Leu Gly
245          250          255
Gln Pro Ile Ile Arg Ser Ile Pro Gln Gly Ile Val Ala Ala Trp Arg
260          265          270
Gln Arg Ser Ser Arg Asp Pro Ser Trp Arg Gln Pro Glu Arg Thr Ile
275          280          285
Leu Arg Pro Arg Phe Arg Arg Glu Val Glu Lys Thr Ala Cys Pro Ser
290          295          300
Gly Lys Lys Ala Arg Glu Ile Asp Glu Ser Leu Ile Phe Tyr Lys Lys
305          310          315
Trp Glu Leu Glu Ala Cys Val Asp Ala Ala Leu Leu Ala Thr Gln Met
325          330          335
Asp Arg Val Asn Ala Ile Pro Phe Thr Tyr Glu Gln Leu Asp Val Leu
340          345          350
Lys His Lys Leu Asp Glu Leu Tyr Pro Gln Gly Tyr Pro Glu Ser Val
355          360          365
Ile Gln His Leu Gly Tyr Leu Phe Leu Lys Met Ser Pro Glu Asp Ile
370          375          380
Arg Lys Trp Asn Val Thr Ser Leu Glu Thr Leu Lys Ala Leu Leu Glu
385          390          395
Val Asn Lys Gly His Glu Met Ser Pro Gln Ala Pro Arg Arg Pro Leu
405          410          415

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Pro Gln Val Ala Thr Leu Ile Asp Arg Phe Val Lys Gly Arg Gly Gln
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Leu Asp Lys Asp Thr Leu Asp Thr Leu Thr Ala Phe Tyr Pro Gly Tyr
      435      440      445
Leu Cys Ser Leu Ser Pro Glu Glu Leu Ser Ser Val Pro Pro Ser Ser
      450      455      460
Ile Trp Ala Val Arg Pro Gln Asp Leu Asp Thr Cys Asp Pro Arg Gln
      465      470      475      480
Leu Asp Val Leu Tyr Pro Lys Ala Arg Leu Ala Phe Gln Asn Met Asn
      485      490      495
Gly Ser Glu Tyr Phe Val Lys Ile Gln Ser Phe Leu Gly Gly Ala Pro
      500      505      510
Thr Glu Asp Leu Lys Ala Leu Ser Gln Gln Asn Val Ser Met Asp Leu
      515      520      525
Ala Thr Phe Met Lys Leu Arg Thr Asp Ala Val Leu Pro Leu Thr Val
      530      535      540
Ala Glu Val Gln Lys Leu Leu Gly Pro His Val Glu Gly Leu Lys Ala
      545      550      555      560
Glu Glu Arg His Arg Pro Val Arg Asp Trp Ile Leu Arg Gln Arg Gln
      565      570      575
Asp Asp Leu Asp Thr Leu Gly Leu Gly Leu Gln Gly Gly Ile Pro Asn
      580      585      590
Gly Tyr Leu Val Leu Asp Leu Ser Val Gln Gly Gly Arg Gly Gly Gln
      595      600      605
Ala Arg Ala Gly Gly Arg Ala Gly Gly Val Glu Val Gly Ala Leu Ser
      610      615      620
His Pro Ser Leu Cys Arg Gly Pro Leu Gly Asp Ala Leu Pro Pro Arg
      625      630      635      640
Thr Trp Thr Cys Ser His Arg Pro Gly Thr Ala Pro Ser Leu His Pro
      645      650      655
Gly Leu Arg Ala Pro Leu Pro Cys Trp Pro Gln Pro Cys Trp Gly Ser
      660      665      670
Pro Pro Gly Gln Glu Gln Ala Arg Val Ile Pro Val Pro Pro Gln Glu
      675      680      685
Asn Ser Arg Ser Val Asn Gly Asn Met Pro Pro Ala Asp Thr
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<210> 194

<211> 2135

<212> DNA

<213> Homo sapiens

<400> 194

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tctgtgggga ccccgccctc cggcagcctc ctgttctcgc tcttcagcct cggatgggtg 180
cagccctcga ggaccctggc tggagagaca gggcaggagg ctgcacccct ggaaggagtc 240
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gcggaggtgt cggcgctgag cacggagcgt gtccggggagc tggctgtggc ctggccacag 360
aagaatgtca agctctcaac agagcagctg cgctgtctgg ctccacggct ctctgagccc 420
cccgaggacc tggacgcctc ccattggac ctgctgctat tctccaaccc agatgcgttc 480
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ccccctacg gcccccctgc gacatggtct gtctccacga tggacgctct cggggggcctg 840

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<210> 195
<211> 630
<212> PRT
<213> Homo sapiens

<400> 195

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			20					25					30		
Pro	Ser	Arg	Thr	Leu	Ala	Gly	Glu	Thr	Gly	Gln	Glu	Ala	Ala	Pro	Leu
			35				40					45			
Asp	Gly	Val	Leu	Ala	Asn	Pro	Pro	Asn	Ile	Ser	Ser	Leu	Ser	Pro	Arg
	50				55					60					
Gln	Leu	Leu	Gly	Phe	Pro	Cys	Ala	Glu	Val	Ser	Gly	Leu	Ser	Thr	Glu
65				70					75					80	
Arg	Val	Arg	Glu	Leu	Ala	Val	Ala	Leu	Ala	Gln	Lys	Asn	Val	Lys	Leu
			85					90					95		
Ser	Thr	Glu	Gln	Leu	Arg	Cys	Leu	Ala	His	Arg	Leu	Ser	Glu	Pro	Pro
			100				105						110		
Glu	Asp	Leu	Asp	Ala	Leu	Pro	Leu	Asp	Leu	Leu	Leu	Phe	Leu	Asn	Pro
	115					120						125			
Asp	Ala	Phe	Ser	Gly	Pro	Gln	Ala	Cys	Thr	Arg	Phe	Phe	Ser	Arg	Ile
	130				135					140					
Thr	Lys	Ala	Asn	Val	Asp	Leu	Leu	Pro	Arg	Gly	Ala	Pro	Glu	Arg	Gln
145				150					155					160	
Arg	Leu	Leu	Pro	Ala	Ala	Leu	Ala	Cys	Trp	Gly	Val	Arg	Gly	Ser	Leu
			165					170					175		
Leu	Ser	Glu	Ala	Asp	Val	Arg	Ala	Leu	Gly	Gly	Leu	Ala	Cys	Asp	Leu
	180						185						190		
Pro	Gly	Arg	Phe	Val	Ala	Glu	Ser	Ala	Glu	Val	Leu	Leu	Pro	Arg	Leu
	195					200						205			
Val	Ser	Cys	Pro	Gly	Pro	Leu	Asp	Gln	Asp	Gln	Gln	Glu	Ala	Ala	Arg
	210					215					220				
Ala	Ala	Leu	Gln	Gly	Gly	Gly	Pro	Pro	Tyr	Gly	Pro	Pro	Ser	Thr	Trp

200

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225          230          235          240
Ser Val Ser Thr Met Asp Ala Leu Arg Gly Leu Leu Pro Val Leu Gly
          245          250          255
Gln Pro Ile Ile Arg Ser Ile Pro Gln Gly Ile Val Ala Ala Trp Arg
          260          265          270
Gln Arg Ser Ser Arg Asp Pro Ser Trp Arg Gln Pro Glu Arg Thr Ile
          275          280          285
Leu Arg Pro Arg Phe Arg Arg Glu Val Glu Lys Thr Ala Cys Pro Ser
          290          295          300
Gly Lys Lys Ala Arg Glu Ile Asp Glu Ser Leu Ile Phe Tyr Lys Lys
305          310          315          320
Trp Glu Leu Glu Ala Cys Val Asp Ala Ala Leu Leu Ala Thr Gln Met
          325          330          335
Asp Arg Val Asn Ala Ile Pro Phe Thr Tyr Glu Gln Leu Asp Val Leu
          340          345          350
Lys His Lys Leu Asp Glu Leu Tyr Pro Gln Gly Tyr Pro Glu Ser Val
          355          360          365
Ile Gln His Leu Gly Tyr Leu Phe Leu Lys Met Ser Pro Glu Asp Ile
          370          375          380
Arg Lys Trp Asn Val Thr Ser Leu Glu Thr Leu Lys Ala Leu Leu Glu
385          390          395          400
Val Asn Lys Gly His Glu Met Ser Pro Gln Ala Pro Arg Arg Pro Leu
          405          410          415
Pro Gln Val Ala Thr Leu Ile Asp Arg Phe Val Lys Gly Arg Gly Gln
          420          425          430
Leu Asp Lys Asp Thr Leu Asp Thr Leu Thr Ala Phe Tyr Pro Gly Tyr
          435          440          445
Leu Cys Ser Leu Ser Pro Glu Glu Leu Ser Ser Val Pro Pro Ser Ser
          450          455          460
Ile Trp Ala Val Arg Pro Gln Asp Leu Asp Thr Cys Asp Pro Arg Gln
465          470          475          480
Leu Asp Val Leu Tyr Pro Lys Ala Arg Leu Ala Phe Gln Asn Met Asn
          485          490          495
Gly Ser Glu Tyr Phe Val Lys Ile Gln Ser Phe Leu Gly Gly Ala Pro
          500          505          510
Thr Glu Asp Leu Lys Ala Leu Ser Gln Gln Asn Val Ser Met Asp Leu
          515          520          525
Ala Thr Phe Met Lys Leu Arg Thr Asp Ala Val Leu Pro Leu Thr Val
          530          535          540
Ala Glu Val Gln Lys Leu Leu Gly Pro His Val Glu Gly Leu Lys Ala
545          550          555          560
Glu Glu Arg His Arg Pro Val Arg Asp Trp Ile Leu Arg Gln Arg Gln
          565          570          575
Asp Asp Leu Asp Thr Leu Gly Leu Gly Leu Gln Gly Gly Ile Pro Asn
          580          585          590
Gly Tyr Leu Val Leu Asp Leu Ser Val Gln Glu Ala Leu Ser Gly Thr
          595          600          605
Pro Cys Leu Leu Gly Pro Gly Pro Val Leu Thr Val Leu Ala Leu Leu
          610          615          620
Leu Ala Ser Thr Leu Ala
625          630

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<210> 196

<211> 2105

<212> DNA

<213> Homo sapiens

<400> 196
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 tccctgggga ccccgccctc cggcagccct ctgttccctg tcttcagcct cggatgggtg 180
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 gctggggatc cccgcctggc caggagcagg caccgggtgat ccccgctcca ccccaagaga 2040
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 aaaa 2105

<210> 197
 <211> 620
 <212> PRT
 <213> Homo sapiens

<400> 197
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 Pro Ser Arg Thr Leu Ala Gly Glu Thr Gly Gln Glu Ala Ala Pro Leu
 35 40 45
 Asp Gly Val Leu Ala Asn Pro Pro Asn Ile Ser Ser Leu Ser Pro Arg
 50 55 60
 Gln Leu Leu Gly Phe Pro Cys Ala Glu Val Ser Gly Leu Ser Thr Glu
 65 70 75 80
 Arg Val Arg Glu Leu Ala Val Ala Leu Ala Gln Lys Asn Val Lys Leu
 85 90 95
 Ser Thr Glu Gln Leu Arg Cys Leu Ala His Arg Leu Ser Glu Pro Pro
 100 105 110

Glu Asp Leu Asp Ala Leu Pro Leu Asp Leu Leu Leu Phe Leu Asn Pro
 115 120 125
 Asp Ala Phe Ser Gly Pro Gln Ala Cys Thr Arg Phe Ser Arg Ile
 130 135 140
 Thr Lys Ala Asn Val Asp Leu Leu Pro Arg Gly Ala Pro Glu Arg Gln
 145 150 155 160
 Arg Leu Leu Pro Ala Ala Leu Ala Cys Trp Gly Val Arg Gly Ser Leu
 165 170 175
 Leu Ser Glu Ala Asp Val Arg Ala Leu Gly Gly Leu Ala Cys Asp Leu
 180 185 190
 Pro Gly Arg Phe Val Ala Glu Ser Ala Glu Val Leu Leu Pro Arg Leu
 195 200 205
 Val Ser Cys Pro Gly Pro Leu Asp Gln Asp Gln Gln Glu Ala Ala Arg
 210 215 220
 Ala Ala Leu Gln Gly Gly Gly Pro Pro Tyr Gly Pro Pro Ser Thr Trp
 225 230 235 240
 Ser Val Ser Thr Met Asp Ala Leu Arg Gly Leu Leu Pro Val Leu Gly
 245 250 255
 Gln Pro Ile Ile Arg Ser Ile Pro Gln Gly Ile Val Ala Ala Trp Arg
 260 265 270
 Gln Arg Ser Ser Arg Asp Pro Ser Trp Arg Gln Pro Glu Arg Thr Ile
 275 280 285
 Leu Arg Pro Arg Phe Arg Arg Glu Val Glu Lys Thr Ala Cys Pro Ser
 290 295 300
 Gly Lys Lys Ala Arg Glu Ile Asp Glu Ser Leu Ile Phe Tyr Lys Lys
 305 310 315 320
 Trp Glu Leu Glu Ala Cys Val Asp Ala Ala Leu Leu Ala Thr Gln Met
 325 330 335
 Asp Arg Val Asn Ala Ile Pro Phe Thr Tyr Glu Gln Leu Asp Val Leu
 340 345 350
 Lys His Lys Leu Asp Glu Leu Tyr Pro Gln Gly Tyr Pro Glu Ser Val
 355 360 365
 Ile Gln His Leu Gly Tyr Leu Phe Leu-Lys Met Ser Pro Glu Asp Ile
 370 375 380
 Arg Lys Trp Asn Val Thr Ser Leu Glu Thr Leu Lys Ala Leu Leu Glu
 385 390 395 400
 Val Asn Lys Gly His Glu Met Ser Pro Gln Ala Pro Arg Arg Pro Leu
 405 410 415
 Pro Gln Val Ala Thr Leu Ile Asp Arg Phe Val Lys Gly Arg Gly Gln
 420 425 430
 Leu Asp Lys Asp Thr Leu Asp Thr Leu Thr Ala Phe Tyr Pro Gly Tyr
 435 440 445
 Leu Cys Ser Leu Ser Pro Glu Glu Leu Ser Ser Val Pro Pro Ser Ser
 450 455 460
 Ile Trp Ala Val Arg Pro Gln Asp Leu Asp Thr Cys Asp Pro Arg Gln
 465 470 475 480
 Leu Asp Val Leu Tyr Pro Lys Ala Arg Leu Ala Phe Gln Asn Met Asn
 485 490 495
 Gly Ser Glu Tyr Phe Val Lys Ile Gln Ser Phe Leu Gly Gly Ala Pro
 500 505 510
 Thr Glu Asp Leu Lys Ala Leu Ser Gln Gln Asn Val Ser Met Asp Leu
 515 520 525
 Ala Thr Phe Met Lys Leu Arg Thr Asp Ala Val Leu Pro Leu Thr Val
 530 535 540
 Ala Glu Val Gln Lys Leu Leu Gly Pro His Val Glu Gly Leu Lys Ala
 545 550 555 560
 Glu Glu Arg His Arg Pro Val Arg Asp Trp Ile Leu Arg Gln Arg Gln
 565 570 575

203

Asp	Asp	Leu	Asp	Thr	Leu	Gly	Leu	Gly	Leu	Gln	Gly	Gly	Ile	Pro	Asn
			580						585				590		
Gly	Tyr	Leu	Val	Leu	Asp	Leu	Ser	Val	Gln	Gly	Pro	Gly	Pro	Val	Leu
		595				600					605				
Thr	Val	Leu	Ala	Leu	Leu	Leu	Ala	Ser	Thr	Leu	Ala				
	610					615					620				

<210> 198

<211> 2193

<212> DNA

<213> Homo sapiens

<400> 198

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cagccctcga	ggaccctggc	tggagagaca	ggcgaggagg	ctgcacccct	ggacggagtc	240
ctggccaacc	caacctaacat	ttccagcctc	tcccctcgcc	aactccttgg	cttccctgtg	300
cgaggagtgt	ccggcctgag	cacggagcgt	gtccgggagc	tggtctgtgc	cttggcacag	360
agaagtgtca	agctctcaac	agagcagctg	cgctgtctgg	ctccacggct	ctctgagccc	420
cccgaggacc	tggagcgcct	ccatttgagc	ctgctgctat	tctccaacc	agatcgcttc	480
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gcagacacgt	aaaaaaaaa	aaaaaaaaa	aaa			2193

<210> 199

<211> 694

<212> PRT

<213> Homo sapiens

<400> 199

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 Pro Ser Arg Thr Leu Ala Gly Glu Thr Gly Gln Glu Ala Ala Pro Leu
 35 40 45
 Asp Gly Val Leu Ala Asn Pro Pro Asn Ile Ser Ser Leu Ser Pro Arg
 50 55 60
 Gln Leu Leu Gly Phe Pro Cys Ala Glu Val Ser Gly Leu Ser Thr Glu
 65 70 75 80
 Arg Val Arg Glu Leu Ala Val Ala Leu Ala Gln Lys Asn Val Lys Leu
 85 90 95
 Ser Thr Glu Gln Leu Arg Cys Leu Ala His Arg Leu Ser Glu Pro Pro
 100 105 110
 Glu Asp Leu Asp Ala Leu Pro Leu Asp Leu Leu Leu Phe Leu Asn Pro
 115 120 125
 Asp Ala Phe Ser Gly Pro Gln Ala Cys Thr Arg Phe Phe Ser Arg Ile
 130 135 140
 Thr Lys Ala Asn Val Asp Leu Leu Pro Arg Gly Ala Pro Glu Arg Gln
 145 150 155 160
 Arg Leu Leu Pro Ala Ala Leu Ala Cys Trp Gly Val Arg Gly Ser Leu
 165 170 175
 Leu Ser Glu Ala Asp Val Arg Ala Leu Gly Gly Leu Ala Cys Asp Leu
 180 185 190
 Pro Gly Arg Phe Val Ala Glu Ser Ala Glu Val Leu Leu Pro Arg Leu
 195 200 205
 Val Ser Cys Pro Gly Pro Leu Asp Gln Asp Gln Gln Glu Ala Ala Arg
 210 215 220
 Ala Ala Leu Gln Gly Gly Gly Pro Pro Tyr Gly Pro Pro Ser Thr Trp
 225 230 235 240
 Ser Val Ser Thr Met Asp Ala Leu Arg Gly Leu Leu Pro Val Leu Gly
 245 250 255
 Gln Pro Ile Ile Arg Ser Ile Pro Gln Gly Ile Val Ala Ala Trp Arg
 260 265 270
 Gln Arg Ser Ser Arg Asp Pro Ser Trp Arg Gln Pro Glu Arg Thr Ile
 275 280 285
 Leu Arg Pro Arg Phe Arg Arg Glu Val Glu Lys Thr Ala Cys Pro Ser
 290 295 300
 Gly Lys Lys Ala Arg Glu Ile Asp Glu Ser Leu Ile Phe Tyr Lys Lys
 305 310 315 320
 Trp Glu Leu Glu Ala Cys Val Asp Ala Ala Leu Leu Ala Thr Gln Met
 325 330 335
 Asp Arg Val Asn Ala Ile Pro Phe Thr Tyr Glu Gln Leu Asp Val Leu
 340 345 350
 Lys His Lys Leu Asp Glu Leu Tyr Pro Gln Gly Tyr Pro Glu Ser Val
 355 360 365
 Ile Gln His Leu Gly Tyr Leu Phe Leu Lys Met Ser Pro Glu Asp Ile
 370 375 380
 Arg Lys Trp Asn Val Thr Ser Leu Glu Thr Leu Lys Ala Leu Leu Glu
 385 390 395 400
 Val Asn Lys Gly His Glu Met Ser Pro Gln Val Ala Thr Leu Ile Asp
 405 410 415
 Arg Phe Val Lys Gly Arg Gly Gln Leu Asp Lys Asp Thr Leu Asp Thr
 420 425 430
 Leu Thr Ala Phe Tyr Pro Gly Tyr Leu Cys Ser Leu Ser Pro Glu Glu
 435 440 445
 Leu Ser Ser Val Pro Pro Ser Ser Ile Trp Ala Val Arg Pro Gln Asp
 450 455 460

Leu Asp Thr Cys Asp Pro Arg Gln Leu Asp Val Leu Tyr Pro Lys Ala
 465 470 475 480
 Arg Leu Ala Phe Gln Asn Met Asn Gly Ser Glu Tyr Phe Val Lys Ile
 485 490 495
 Gln Ser Phe Leu Gly Gly Ala Pro Thr Glu Asp Leu Lys Ala Leu Ser
 500 505 510
 Gln Gln Asn Val Ser Met Asp Leu Ala Thr Phe Met Lys Leu Arg Thr
 515 520 525
 Asp Ala Val Leu Pro Leu Thr Val Ala Glu Val Gln Lys Leu Leu Gly
 530 535 540
 Pro His Val Glu Gly Leu Lys Ala Glu Glu Arg His Arg Pro Val Arg
 545 550 555 560
 Asp Trp Ile Leu Arg Gln Arg Gln Asp Asp Leu Asp Thr Leu Gly Leu
 565 570 575
 Gly Leu Gln Gly Gly Ile Pro Asn Gly Tyr Leu Val Leu Asp Leu Ser
 580 585 590
 Val Gln Gly Gly Arg Gly Gly Gln Ala Arg Ala Gly Gly Arg Ala Gly
 595 600 605
 Gly Val Glu Val Gly Ala Leu Ser His Pro Ser Leu Cys Arg Gly Pro
 610 615 620
 Leu Gly Asp Ala Leu Pro Pro Arg Thr Trp Thr Cys Ser His Arg Pro
 625 630 635 640
 Gly Thr Ala Pro Ser Leu His Pro Gly Leu Arg Ala Pro Leu Pro Cys
 645 650 655
 Trp Pro Gln Pro Cys Trp Gly Ser Pro Pro Gly Gln Glu Gln Ala Arg
 660 665 670
 Val Ile Pro Val Pro Pro Gln Glu Asn Ser Arg Ser Val Asn Gly Asn
 675 680 685
 Met Pro Pro Ala Asp Thr
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<210> 200

<211> 2081

<212> DNA

<213> Homo sapiens

<400> 200

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 tcggggcccc aggcctgcac ccgtttcttc tcccgcatca cgaaggccaa tgtggacctg 540
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 ctggccaccc agatggagcg cgtgaacgcc atcccctca cctacgagca gctggagctc 1140
 ctaaagcata aactggatga gctctaccca caaggttacc ccgagtcgtg gatccagcac 1200

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tgccccctgc agacacgtaa aaaaaaaaaa aaaaaaaaaa a 2081

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<210> 201
 <211> 612
 <212> PRT
 <213> Homo sapiens

<400> 201
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 Pro Ser Arg Thr Leu Ala Gly Glu Thr Gly Gln Glu Ala Ala Pro Leu
 35 40 45
 Asp Gly Val Leu Ala Asn Pro Pro Asn Ile Ser Ser Leu Ser Pro Arg
 50 55 60
 Gln Leu Leu Gly Phe Pro Cys Ala Glu Val Ser Gly Leu Ser Thr Glu
 65 70 75 80
 Arg Val Arg Glu Leu Ala Val Ala Leu Ala Gln Lys Asn Val Lys Leu
 85 90 95
 Ser Thr Glu Gln Leu Arg Cys Leu Ala His Arg Leu Ser Glu Pro Pro
 100 105 110
 Glu Asp Leu Asp Ala Leu Pro Leu Asp Leu Leu Leu Phe Leu Asn Pro
 115 120 125
 Asp Ala Phe Ser Gly Pro Gln Ala Cys Thr Arg Phe Phe Ser Arg Ile
 130 135 140
 Thr Lys Ala Asn Val Asp Leu Leu Pro Arg Gly Ala Pro Glu Arg Gln
 145 150 155 160
 Arg Leu Leu Pro Ala Ala Leu Ala Cys Trp Gly Val Arg Gly Ser Leu
 165 170 175
 Leu Ser Glu Ala Asp Val Arg Ala Leu Gly Gly Leu Ala Cys Asp Leu
 180 185 190
 Pro Gly Arg Phe Val Ala Glu Ser Ala Glu Val Leu Leu Pro Arg Leu
 195 200 205
 Val Ser Cys Pro Gly Pro Leu Asp Gln Asp Gln Gln Glu Ala Ala Arg
 210 215 220
 Ala Ala Leu Gln Gly Gly Gly Pro Pro Tyr Gly Pro Pro Ser Thr Trp
 225 230 235 240
 Ser Val Ser Thr Met Asp Ala Leu Arg Gly Leu Leu Pro Val Leu Gly
 245 250 255
 Gln Pro Ile Ile Arg Ser Ile Pro Gln Gly Ile Val Ala Ala Trp Arg
 260 265 270
 Gln Arg Ser Ser Arg Asp Pro Ser Trp Arg Gln Pro Glu Arg Thr Ile
 275 280 285

Leu Arg Pro Arg Phe Arg Arg Glu Val Glu Lys Thr Ala Cys Pro Ser
 290 295 300
 Gly Lys Lys Ala Arg Glu Ile Asp Glu Ser Leu Ile Phe Tyr Lys Lys
 305 310 315 320
 Trp Glu Leu Glu Ala Cys Val Asp Ala Ala Leu Leu Ala Thr Gln Met
 325 330 335
 Asp Arg Val Asn Ala Ile Pro Phe Thr Tyr Glu Gln Leu Asp Val Leu
 340 345 350
 Lys His Lys Leu Asp Glu Leu Tyr Pro Gln Gly Tyr Pro Glu Ser Val
 355 360 365
 Ile Gln His Leu Gly Tyr Leu Phe Leu Lys Met Ser Pro Glu Asp Ile
 370 375 380
 Arg Lys Trp Asn Val Thr Ser Leu Glu Thr Leu Lys Ala Leu Leu Glu
 385 390 395 400
 Val Asn Lys Gly His Glu Met Ser Pro Gln Val Ala Thr Leu Ile Asp
 405 410 415
 Arg Phe Val Lys Gly Arg Gly Gln Leu Asp Lys Asp Thr Leu Asp Thr
 420 425 430
 Leu Thr Ala Phe Tyr Pro Gly Tyr Leu Cys Ser Leu Ser Pro Glu Glu
 435 440 445
 Leu Ser Ser Val Pro Pro Ser Ser Ile Trp Ala Val Arg Pro Gln Asp
 450 455 460
 Leu Asp Thr Cys Asp Pro Arg Gln Leu Asp Val Leu Tyr Pro Lys Ala
 465 470 475 480
 Arg Leu Ala Phe Gln Asn Met Asn Gly Ser Glu Tyr Phe Val Lys Ile
 485 490 495
 Gln Ser Phe Leu Gly Gly Ala Pro Thr Glu Asp Leu Lys Ala Leu Ser
 500 505 510
 Gln Gln Asn Val Ser Met Asp Leu Ala Thr Phe Met Lys Leu Arg Thr
 515 520 525
 Asp Ala Val Leu Pro Leu Thr Val Ala Glu Val Gln Lys Leu Leu Gly
 530 535 540
 Pro His Val Glu Gly Leu Lys Ala Glu Glu Arg His Arg Pro Val Arg
 545 550 555 560
 Asp Trp Ile Leu Arg Gln Arg Gln Asp Asp Leu Asp Thr Leu Gly Leu
 565 570 575
 Gly Leu Gln Gly Gly Ile Pro Asn Gly Tyr Leu Val Leu Asp Leu Ser
 580 585 590
 Val Gln Gly Pro Gly Pro Val Leu Thr Val Leu Ala Leu Leu Ala
 595 600 605
 Ser Thr Leu Ala
 610

<210> 202

<211> 1195

<212> DNA

<213> Homo sapiens

<400> 202

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 gaccgcgtga acgcatcccc ctacacctac gagcagctgg acgtcctaaa gcataaactg 180
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 cgctttgtga agggaagggg ccagctagac aaagacaccc tagacacctc gaccgccttc 420
 taccctgggt acctgigtgc cctcagcccc gaggagctga gctcctgcc cccacgacgc 480

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<210> 203

<211> 398

<212> PRT

<213> Homo sapiens

<400> 203

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20 25 30
Ala Ala Leu Leu Ala Thr Gln Met Asp Arg Val Asn Ala Ile Pro Phe
35 40 45
Thr Tyr Glu Gln Leu Asp Val Leu Lys His Lys Leu Asp Glu Leu Tyr
50 55 60
Pro Gln Gly Tyr Pro Glu Ser Val Ile Gln His Leu Gly Tyr Leu Phe
65 70 75 80
Leu Lys Met Ser Pro Glu Asp Ile Arg Lys Trp Asn Val Thr Ser Leu
85 90 95
Glu Thr Leu Lys Ala Leu Leu Glu Val Asn Lys Gly His Glu Met Ser
100 105 110
Pro Gln Val Ala Thr Leu Ile Asp Arg Phe Val Lys Gly Arg Gly Gln
115 120 125
Leu Asp Lys Asp Thr Leu Asp Thr Leu Thr Ala Phe Tyr Pro Gly Tyr
130 135 140
Leu Cys Ser Leu Ser Pro Glu Glu Leu Ser Ser Val Pro Pro Ser Ser
145 150 155 160
Ile Trp Ala Val Arg Pro Gln Asp Leu Asp Thr Cys Asp Pro Arg Gln
165 170 175
Leu Asp Val Leu Tyr Pro Lys Ala Arg Leu Ala Phe Gln Asn Met Asn
180 185 190
Gly Ser Glu Tyr Phe Val Lys Ile Gln Ser Phe Leu Gly Gly Ala Pro
195 200 205
Thr Glu Asp Leu Lys Ala Leu Ser Gln Gln Asn Val Ser Met Asp Leu
210 215 220
Ala Thr Phe Met Lys Leu Arg Thr Asp Ala Val Leu Pro Leu Thr Val
225 230 235 240
Ala Glu Val Gln Lys Leu Leu Gly Pro His Val Glu Gly Leu Lys Ala
245 250 255
Glu Glu Arg His Arg Pro Val Arg Asp Trp Ile Leu Arg Gln Arg Gln
260 265 270
Asp Asp Leu Asp Thr Leu Gly Leu Gly Leu Gln Gly Gly Ile Pro Asn
275 280 285
Gly Tyr Leu Val Leu Asp Leu Ser Val Gln Gly Gly Arg Gly Gly Gln
290 295 300
Ala Arg Ala Gly Gly Arg Ala Gly Gly Val Glu Val Gly Ala Leu Ser

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209

305				310				315				320
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				325					330			335
Thr	Trp	Thr	Cys	Ser	His	Arg	Pro	Gly	Thr	Ala	Pro	Ser
				340				345				350
Gly	Leu	Arg	Ala	Pro	Leu	Pro	Cys	Trp	Pro	Gln	Pro	Cys
				355			360				365	Trp
Pro	Pro	Gly	Gln	Glu	Gln	Ala	Arg	Val	Ile	Pro	Val	Pro
				370		375				380		Gln
Asn	Ser	Arg	Ser	Val	Asn	Gly	Asn	Met	Pro	Pro	Ala	Asp
				385		390				395		Thr

<210> 204

<211> 2085

<212> DNA

<213> Homo sapiens

<400> 204

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<210> 205

<211> 622

<212> PRT

<213> Homo sapiens

<400> 205

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 20      25      30
Pro Ser Arg Thr Leu Ala Gly Glu Thr Gly Gln Glu Ala Ala Pro Leu
 35      40      45
Asp Gly Val Leu Ala Asn Pro Pro Asn Ile Ser Ser Leu Ser Pro Arg
 50      55      60
Gln Leu Leu Gly Phe Pro Cys Ala Glu Val Ser Gly Leu Ser Thr Glu
 65      70      75      80
Arg Val Arg Glu Leu Ala Val Ala Leu Ala Gln Lys Asn Val Lys Leu
 85      90      95
Ser Thr Glu Gln Leu Arg Cys Leu Ala His Arg Leu Ser Glu Pro Pro
100      105      110
Glu Asp Leu Asp Ala Leu Pro Leu Asp Leu Leu Leu Phe Leu Asn Pro
115      120      125
Asp Ala Phe Ser Gly Pro Gln Ala Cys Thr Arg Phe Phe Ser Arg Ile
130      135      140
Thr Lys Ala Asn Val Asp Leu Leu Pro Arg Gly Ala Pro Glu Arg Gln
145      150      155      160
Arg Leu Leu Pro Ala Ala Leu Ala Cys Trp Gly Val Arg Gly Ser Leu
165      170      175
Leu Ser Glu Ala Asp Val Arg Ala Leu Gly Gly Leu Ala Cys Asp Leu
180      185      190
Pro Gly Arg Phe Val Ala Glu Ser Ala Glu Val Leu Leu Pro Arg Leu
195      200      205
Val Ser Cys Pro Gly Pro Leu Asp Gln Asp Gln Gln Ala Ala Arg
210      215      220
Ala Ala Leu Gln Gly Gly Gly Pro Pro Tyr Gly Pro Pro Ser Thr Trp
225      230      235      240
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245      250      255
Gln Pro Ile Ile Arg Ser Ile Pro Gln Gly Ile Val Ala Ala Trp Arg
260      265      270
Gln Arg Ser Ser Arg Asp Pro Ser Trp Arg Gln Pro Glu Arg Thr Ile
275      280      285
Leu Arg Pro Arg Phe Arg Arg Glu Val Glu Lys Thr Ala Cys Pro Ser
290      295      300
Gly Lys Lys Ala Arg Glu Ile Asp Glu Ser Leu Ile Phe Tyr Lys Lys
305      310      315      320
Trp Glu Leu Glu Ala Cys Val Asp Ala Ala Leu Leu Ala Thr Gln Met
325      330      335
Asp Arg Val Asn Ala Ile Pro Phe Thr Tyr Glu Gln Leu Asp Val Leu
340      345      350
Lys His Lys Leu Asp Glu Leu Tyr Pro Gln Gly Tyr Pro Glu Ser Val
355      360      365
Ile Gln His Leu Gly Tyr Leu Phe Leu Lys Met Ser Pro Glu Asp Ile
370      375      380
Arg Lys Trp Asn Val Thr Ser Leu Glu Thr Leu Lys Ala Leu Leu Glu
385      390      395      400
Val Asn Lys Gly His Glu Met Ser Pro Gln Val Ala Thr Leu Ile Asp
405      410      415
Arg Phe Val Lys Gly Arg Gly Gln Leu Asp Lys Asp Thr Leu Asp Thr
420      425      430
Leu Thr Ala Phe Tyr Pro Gly Tyr Leu Cys Ser Leu Ser Pro Glu Glu

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435	440	445
Leu Ser Val Pro Pro Ser Ser Ile Trp Ala Val Arg Pro Gln Asp		
450	455	460
Leu Asp Thr Cys Asp Pro Arg Gln Leu Asp Val Leu Tyr Pro Lys Ala		
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Arg Leu Ala Phe Gln Asn Met Asn Gly Ser Glu Tyr Phe Val Lys Ile		
485	490	495
Gln Ser Phe Leu Gly Gly Ala Pro Thr Glu Asp Leu Lys Ala Leu Ser		
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Gln Gln Asn Val Ser Met Asp Leu Ala Thr Phe Met Lys Leu Arg Thr		
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Asp Ala Val Leu Pro Leu Thr Val Ala Glu Val Gln Lys Leu Leu Gly		
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Pro His Val Glu Gly Leu Lys Ala Glu Glu Arg His Arg Pro Val Arg		
545	550	555
Asp Trp Ile Leu Arg Gln Arg Gln Asp Asp Leu Asp Thr Leu Gly Leu		
565	570	575
Gly Leu Gln Gly Gly Ile Pro Asn Gly Tyr Leu Val Leu Asp Leu Ser		
580	585	590
Val Gln Glu Ala Leu Ser Gly Thr Pro Cys Leu Leu Gly Pro Gly Pro		
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Val Leu Thr Val Leu Ala Leu Leu Leu Ala Ser Thr Leu Ala		
610	615	620

<210> 206

<211> 2111

<212> DNA

<213> Homo sapiens

<400> 206

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212

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<210> 207

<211> 2107

<212> DNA

<213> Homo sapiens

<400> 207

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aaacccccat	aaacattcca	gcctctcccc	tcgccaactc	cttgggttcc	ctgtgtcgga	300
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<210> 208

<211> 628

<212> FRT

<213> Homo sapiens

<400> 208

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 20      25      30
Arg Thr Leu Ala Gly Glu Thr Gly Thr Glu Ser Ala Pro Leu Gly Gly
 35      40      45
Val Leu Thr Thr Pro His Asn Ile Ser Ser Leu Ser Pro Arg Gln Leu
 50      55      60
Leu Gly Phe Pro Cys Ala Glu Val Ser Gly Leu Ser Thr Glu Arg Val
 65      70      75      80
Arg Glu Leu Ala Val Ala Leu Ala Gln Lys Asn Val Lys Leu Ser Thr
 85      90      95
Glu Gln Leu Arg Cys Leu Ala His Arg Leu Ser Glu Pro Pro Glu Asp
100      105      110
Leu Asp Ala Leu Pro Leu Asp Leu Leu Leu Phe Leu Asn Pro Asp Ala
115      120      125
Phe Ser Gly Pro Gln Ala Cys Thr Arg Phe Phe Ser Arg Ile Thr Lys
130      135      140
Ala Asn Val Asp Leu Leu Pro Arg Gly Ala Pro Glu Arg Gln Arg Leu
145      150      155      160
Leu Pro Ala Ala Leu Ala Cys Trp Gly Val Arg Gly Ser Leu Leu Ser
165      170      175
Glu Ala Asp Val Arg Ala Leu Gly Gly Leu Ala Cys Asp Leu Pro Gly
180      185      190
Arg Phe Val Ala Glu Ser Ala Glu Val Leu Leu Pro Arg Leu Val Ser
195      200      205
Cys Pro Gly Pro Leu Asp Gln Asp Gln Gln Glu Ala Ala Arg Ala Ala
210      215      220
Leu Gln Gly Gly Gly Pro Pro Tyr Gly Pro Pro Ser Thr Trp Ser Val
225      230      235      240
Ser Thr Met Asp Ala Leu Arg Gly Leu Leu Pro Val Leu Gly Gln Pro
245      250      255
Ile Ile Arg Ser Ile Pro Gln Gly Ile Val Ala Ala Trp Arg Gln Arg
260      265      270
Ser Ser Arg Asp Pro Ser Trp Arg Gln Pro Glu Arg Thr Ile Leu Arg
275      280      285
Pro Arg Phe Arg Arg Glu Val Glu Lys Thr Ala Cys Pro Ser Gly Lys
290      295      300
Lys Ala Arg Glu Ile Asp Glu Ser Leu Ile Phe Tyr Lys Lys Trp Glu
305      310      315      320
Leu Glu Ala Cys Val Asp Ala Ala Leu Leu Ala Thr Gln Met Asp Arg
325      330      335
Val Asn Ala Ile Pro Phe Thr Tyr Glu Gln Leu Asp Val Leu Lys His
340      345      350
Lys Leu Asp Glu Leu Tyr Pro Gln Gly Tyr Pro Glu Ser Val Ile Gln
355      360      365
His Leu Gly Tyr Leu Phe Leu Lys Met Ser Pro Glu Asp Ile Arg Lys
370      375      380
Trp Asn Val Thr Ser Leu Glu Thr Leu Lys Ala Leu Leu Glu Val Asp
385      390      395      400
Lys Gly His Glu Met Ser Pro Gln Ala Pro Arg Arg Pro Leu Pro Gln
405      410      415
Val Ala Thr Leu Ile Asp Arg Phe Val Lys Gly Arg Gly Gln Leu Asp
420      425      430
Lys Asp Thr Leu Asp Thr Leu Thr Ala Phe Tyr Pro Gly Tyr Leu Cys
435      440      445
Ser Leu Ser Pro Glu Glu Leu Ser Ser Val Pro Pro Ser Ser Ile Trp

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450	Ala Val Arg Pro Gln Asp	455	Leu Asp Thr Cys Asp	460	Pro Arg Gln Leu Asp
465	Val Leu Tyr Pro Lys Ala Arg Leu Ala Phe Gln Asn Met Asn Gly Ser	470		475	
	485		490		495
Glu Tyr Phe Val Lys Ile Gln Ser Phe Leu Gly Gly Ala Pro Thr Glu	500	505		510	
Asp Leu Lys Ala Leu Ser Gln Gln Asn Val Ser Met Asp Leu Ala Thr	515	520		525	
Phe Met Lys Leu Arg Thr Asp Ala Val Leu Pro Leu Thr Val Ala Glu	530	535		540	
Val Gln Lys Leu Leu Gly Pro His Val Glu Gly Leu Lys Ala Glu Glu	545	550		555	560
Arg His Arg Pro Val Arg Asp Trp Ile Leu Arg Gln Arg Gln Asp Asp	565	570		575	
Leu Asp Thr Leu Gly Leu Gly Leu Gln Gly Gly Ile Pro Asn Gly Tyr	580	585		590	
Leu Val Leu Asp Leu Ser Val Gln Glu Thr Leu Ser Gly Thr Pro Cys	595	600		605	
Leu Leu Gly Pro Gly Pro Val Leu Thr Val Leu Ala Leu Leu Leu Ala	610	615		620	
Ser Thr Leu Ala					
625					

<210> 209

<211> 2316

<212> DNA

<213> Homo sapiens

<400> 209

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215

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<210> 210

<211> 630

<212> PRT

<213> Homo sapiens

<220>

<221> VARIANT

<222> (1) ... (630)

<223> Xaa = Any Amino Acid

<400> 210

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Pro Ser Arg Thr Leu Ala Gly Glu Thr Gly Gln Glu Ala Ala Pro Leu
 35          40          45
Asp Gly Val Leu Ala Asn Pro Pro Asn Ile Ser Ser Leu Ser Pro Arg
 50          55          60
Gln Leu Leu Gly Phe Pro Cys Ala Glu Val Ser Gly Leu Ser Thr Glu
 65          70          75
Arg Val Arg Glu Leu Ala Val Ala Leu Ala Gln Lys Asn Val Lys Leu
 85          90          95
Ser Thr Glu Gln Leu Arg Cys Leu Ala His Arg Leu Ser Glu Pro Pro
100          105          110
Glu Asp Leu Asp Ala Leu Pro Leu Asp Leu Leu Phe Leu Asn Pro
115          120          125
Asp Ala Phe Ser Gly Pro Gln Ala Cys Thr Arg Phe Phe Ser Arg Ile
130          135          140
Thr Lys Ala Asn Val Asp Leu Leu Pro Arg Gly Ala Pro Glu Arg Gln
145          150          155
Arg Leu Leu Pro Ala Ala Leu Ala Cys Trp Gly Val Arg Gly Ser Leu
165          170          175
Leu Ser Glu Ala Asp Val Arg Ala Leu Gly Gly Leu Ala Cys Asp Leu
180          185          190
Pro Gly Arg Phe Val Ala Glu Ser Ala Glu Val Leu Leu Pro Arg Leu
195          200          205
Val Ser Cys Pro Gly Pro Leu Asp Gln Asp Gln Gln Glu Ala Ala Arg
210          215          220
Ala Ala Leu Gln Gly Gly Gly Pro Pro Tyr Gly Pro Pro Ser Thr Trp
225          230          235
Ser Val Ser Thr Met Asp Ala Leu Arg Gly Leu Leu Pro Val Leu Gly
245          250          255
Gln Pro Ile Ile Arg Ser Ile Pro Gln Gly Ile Val Ala Ala Trp Arg
260          265          270

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Gln Arg Ser Ser Arg Asp Pro Ser Trp Arg Gln Pro Glu Arg Thr Ile
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 Leu Arg Pro Arg Phe Arg Arg Glu Val Glu Lys Thr Ala Cys Pro Ser
 290 295 300
 Gly Lys Lys Ala Arg Glu Ile Asp Glu Ser Leu Ile Phe Tyr Lys Lys
 305 310 315 320
 Trp Glu Leu Glu Ala Cys Val Asp Ala Ala Leu Leu Ala Thr Gln Met
 325 330 335
 Asp Arg Val Asn Ala Ile Pro Phe Thr Tyr Glu Gln Leu Asp Val Leu
 340 345 350
 Lys His Lys Leu Asp Glu Leu Tyr Pro Gln Gly Tyr Pro Glu Ser Val
 355 360 365
 Ile Gln His Leu Gly Tyr Leu Phe Leu Lys Met Ser Pro Glu Asp Ile
 370 375 380
 Arg Lys Trp Asn Val Thr Ser Leu Glu Thr Leu Lys Ala Leu Leu Glu
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 Val Asp Lys Gly His Glu Met Ser Pro Gln Ala Pro Arg Arg Pro Leu
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 Pro Gln Val Ala Thr Leu Ile Asp Arg Phe Val Lys Gly Arg Gly Gln
 420 425 430
 Leu Asp Lys Asp Thr Leu Asp Thr Leu Thr Ala Phe Tyr Pro Gly Tyr
 435 440 445
 Leu Cys Ser Leu Ser Pro Glu Glu Leu Ser Ser Val Pro Pro Ser Ser
 450 455 460
 Ile Trp Ala Val Arg Pro Gln Asp Leu Asp Thr Cys Asp Pro Arg Gln
 465 470 475 480
 Leu Asp Val Leu Tyr Pro Lys Ala Arg Leu Ala Phe Gln Asn Met Asn
 485 490 495
 Gly Ser Glu Tyr Phe Val Lys Ile Gln Ser Phe Leu Gly Gly Ala Pro
 500 505 510
 Thr Glu Asp Leu Lys Ala Leu Ser Gln Gln Asn Val Ser Met Asp Leu
 515 520 525
 Ala Thr Phe Met Lys Leu Arg Thr Asp Ala Val Leu Pro Leu Thr Val
 530 535 540
 Ala Glu Val Gln Lys Leu Leu Gly Pro His Val Glu Gly Leu Lys Ala
 545 550 555 560
 Glu Glu Arg His Arg Pro Val Arg Asp Trp Ile Leu Arg Gln Arg Gln
 565 570 575
 Asp Asp Leu Asp Thr Leu Gly Leu Gly Leu Gln Gly Gly Ile Pro Asn
 580 585 590
 Gly Tyr Leu Val Leu Asp Leu Ser Val Gln Xaa Xaa Leu Ser Gly Thr
 595 600 605
 Pro Cys Leu Leu Gly Pro Gly Pro Val Leu Thr Val Leu Ala Leu Leu
 610 615 620
 Leu Ala Ser Thr Leu Ala
 625 630

<210> 211

<211> 1721

<212> DNA

<213> Homo sapiens

<400> 211

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 agaagttcag tgcccagctc tactgagaag aatgctgtga gtatgaccag cagcgtactc 240

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<210> 212

<211> 515

<212> PRT

<213> Homo sapiens

<400> 212

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35 40 45
Thr Glu Lys Asn Ala Val Ser Met Thr Ser Ser Val Leu Ser Ser His
50 55 60
Ser Pro Gly Ser Gly Ser Ser Thr Thr Gln Gly Gln Asp Val Thr Leu
65 70 75 80
Ala Pro Ala Thr Glu Pro Ala Ser Gly Ser Ala Ala Thr Trp Gly Gln
85 90 95
Asp Val Thr Ser Val Pro Val Thr Arg Pro Ala Leu Gly Ser Thr Thr
100 105 110
Pro Pro Ala His Asp Val Thr Ser Ala Pro Asp Asn Lys Pro Ala Pro
115 120 125
Gly Ser Thr Ala Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Thr
130 135 140
Arg Pro Pro Pro Gly Ser Thr Ala Pro Pro Ala His Gly Val Thr Ser
145 150 155 160
Ala Pro Asp Thr Arg Pro Pro Pro Gly Ser Thr Ala Pro Ala His
165 170 175
Gly Val Thr Ser Ala Pro Asp Thr Arg Pro Ala Pro Gly Ser Thr Ala
180 185 190
Pro Pro Ala His Gly Val Thr Ser Ala Pro Asp Asn Arg Pro Ala Leu
195 200 205

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218

Ala Ser Thr Ala Pro Pro Val His Asn Val Thr Ser Ala Ser Gly Ser
 210 215 220
 Ala Ser Gly Ser Ala Ser Thr Leu Val His Asn Gly Thr Ser Ala Arg
 225 230 235 240
 Ala Thr Thr Thr Pro Ala Ser Lys Ser Thr Pro Phe Ser Ile Pro Ser
 245 250 255
 His His Ser Asp Thr Pro Thr Thr Leu Ala Ser His Ser Thr Lys Thr
 260 265 270
 Asp Ala Ser Ser Thr His His Ser Thr Val Pro Pro Leu Thr Ser Ser
 275 280 285
 Asn His Ser Thr Ser Pro Gln Leu Ser Thr Gly Val Ser Phe Phe Phe
 290 295 300
 Leu Ser Phe His Ile Ser Asn Leu Gln Phe Asn Ser Ser Leu Glu Asp
 305 310 315 320
 Pro Ser Thr Asp Tyr Tyr Gln Glu Leu Gln Arg Asp Ile Ser Glu Met
 325 330 335
 Phe Leu Gln Ile Tyr Lys Gln Gly Gly Phe Leu Gly Leu Ser Asn Ile
 340 345 350
 Lys Phe Arg Pro Gly Ser Val Val Val Gln Leu Thr Leu Ala Phe Arg
 355 360 365
 Glu Gly Thr Ile Asn Val His Asp Val Glu Thr Gln Phe Asn Gln Tyr
 370 375 380
 Lys Thr Glu Ala Ala Ser Arg Tyr Asn Leu Thr Ile Ser Asp Val Ser
 385 390 395 400
 Val Ser Asp Val Pro Phe Pro Phe Ser Ala Gln Ser Gly Ala Gly Val
 405 410 415
 Pro Gly Trp Gly Ile Ala Leu Leu Val Leu Val Cys Val Leu Val Ala
 420 425 430
 Leu Ala Ile Val Tyr Leu Ile Ala Leu Ala Val Cys Gln Cys Arg Arg
 435 440 445
 Lys Asn Tyr Gly Gln Leu Asp Ile Phe Pro Ala Arg Asp Thr Tyr His
 450 455 460
 Pro Met Ser Glu Tyr Pro Thr Tyr His Thr His Gly Arg Tyr Val Pro
 465 470 475 480
 Pro Ser Ser Thr Asp Arg Ser Pro Tyr Glu Lys Val Ser Ala Gly Asn
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 Ala Asn Leu
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<210> 213

<211> 5793

<212> DNA

<213> Homo sapiens

<400> 213

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<210> 214

<211> 1783

<212> PRT

<213> Homo sapiens

<220>

<221> VARIANT

<222> (1)...(1783)

<223> Xaa = Any Amino Acid

<400> 214

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Tyr Val Asn Gly Phe Asn Pro Trp Ser Ser Val Pro Thr Thr Ser Thr
 35          40          45
Pro Gly Thr Ser Thr Val His Leu Ala Thr Ser Gly Thr Pro Ser Ser
 50          55          60
Leu Pro Gly His Thr Ala Pro Val Pro Leu Leu Ile Pro Phe Thr Leu
 65          70          75
Asn Phe Thr Ile Thr Asn Leu His Tyr Glu Glu Asn Met Gln His Pro
 85          90          95
Gly Ser Arg Lys Phe Asn Thr Thr Glu Arg Val Leu Gln Gly Leu Leu
100         105         110
Lys Pro Leu Phe Lys Ser Thr Ser Val Gly Pro Leu Tyr Ser Gly Cys
115         120         125
Arg Leu Thr Leu Leu Arg Pro Glu Lys His Gly Ala Ala Thr Gly Val

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145	150	155
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165	170	175
Glu Leu Gly Pro Tyr	Thr Leu Asp Arg Asp	Ser Leu Tyr Val Asn Gly
180	185	190
Phe Thr His Arg Ser	Ser Val Pro Thr Thr Ser	Ile Pro Gly Thr Ser
195	200	205
Ala Val His Leu Glu	Thr Ser Gly Thr Pro Ala	Ser Leu Pro Gly His
210	215	220
Thr Ala Pro Gly Pro	Leu Leu Val Pro Phe Thr	Leu Asn Phe Thr Ile
225	230	235
Thr Asn Leu Gln Tyr	Glu Glu Asp Met Arg	His Pro Gly Ser Arg Lys
245	250	255
Phe Asn Thr Thr Glu	Arg Val Leu Gln Gly	Leu Leu Lys Pro Leu Phe
260	265	270
Lys Ser Thr Ser Val	Gly Pro Leu Tyr Ser	Gly Cys Arg Leu Thr Leu
275	280	285
Leu Arg Pro Glu Lys	Arg Gly Ala Ala Thr	Gly Val Asp Thr Ile Cys
290	295	300
Thr His Arg Leu Asp	Pro Leu Asn Pro Gly	Leu Asp Arg Glu Gln Leu
305	310	315
Tyr Trp Glu Leu Ser	Lys Leu Thr Arg Gly	Ile Ile Glu Leu Gly Pro
325	330	335
Tyr Leu Leu Asp Arg	Gly Ser Leu Tyr Val	Asn Gly Phe Thr His Arg
340	345	350
Asn Phe Val Pro Ile	Thr Ser Thr Pro Gly	Thr Ser Thr Val His Leu
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Gly Thr Ser Glu Thr	Pro Ser Ser Leu Pro	Arg Pro Ile Val Pro Gly
370	375	380
Pro Leu Leu Val Pro	Phe Thr Leu Asn Phe	Thr Ile Thr Asn Leu Gln
385	390	395
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Gly Ser Gln Leu His Asp Thr Phe Arg Phe Cys Leu Val Thr Asn Leu				
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<212> PRT

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Glu	Asp	Val	His	Leu	Ala	Arg	Ser
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Tyr	Ala	Ile	Gln	Gln	Met	Met	Glu
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Thr	Phe	Glu	Glu	Arg	Ile	Ser	Arg
			145				
Arg	Ser	His	Thr	Val	Trp	Glu	Arg
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Val	Gln	Gly	Phe	Pro	Thr	Pro	Val
			180				
Leu	Ile	Cys	Gln	Ala	Ala	Glu	Pro
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Tyr	Gly	Val	His	Thr	Leu	Glu	Ile
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Ala	Thr	Tyr	Ser	Ala	Val	Ala	Thr
			225				
Asn	Ala	Ala	Val	Val	Val	Arg	Arg
			245				
Arg	Ser	Val	Gly	Leu	Pro	Ile	Gly
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Tyr	Thr	His	Phe	Asp	Val	Gln	Phe
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Arg	Arg	Glu	Gly	Glu	Thr	Val	Thr
			290				
Pro	Asp	Leu	Lys	Arg	Val	Gln	Pro
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Leu	Leu	Leu	Lys	Glu	Ser	Lys	Trp
			325				
Gln	Ala	Ser	Leu	Ser	Phe	Ser	His
			340				
Tyr	Thr	Leu	Arg	Ile	Val	Ser	Arg
			355				
Phe	Leu	Phe	Val	Arg	Asp	Ala	Asp
			370				
Ala	Pro	Met	Asp	Leu	Gln	Cys	His
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Tyr	Phe	Val	Asp	Arg	Cys	Glu	Val
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Glu	Gly	Arg	Ser	Tyr	Ile	Phe	Arg
			450				
Ile	Ser	Arg	Pro	Ser	Arg	Val	Ser
			465				
Leu	Asp	Leu	Arg	Arg	Leu	Gln	Ala
			485				
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Ala	Gln	Thr	Ala	Val	Arg	Ser	Pro	Arg	Tyr	Ala	Val	Phe	Asp	Leu	Met	
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Glu	Gly	Lys	Ser	Tyr	Val	Phe	Arg	Val	Leu	Ser	Ala	Asn	Arg	His	Gly	
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Gln	Ala	Ala	Leu	Thr	Val	Pro	Ser	His	Pro	Tyr	Gly	Ile	Thr	Leu	Leu	
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His	His	Lys	Asn	Trp	His	Glu	Val	Asn	Ser	Ser	Pro	Ser	Lys	Pro	Thr	
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Leu	Gly	Thr	Tyr	965					970				975				
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Cys	His	Lys	Asp	Ala	Lys	Ile	Ser	Ser	1265	Ser	Glu	His	Met	Arg	Ile	Gly	
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					1285												

238

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 <213> Homo sapiens

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 <211> 689
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Leu Leu Pro Ser Tyr Ser Thr Ala Thr Leu Ile Asp Glu Pro Thr Glu
 50 55 60
 Val Asp Asp Pro Trp Asn Leu Pro Thr Leu Gln Asp Ser Gly Ile Lys
 65 70 75 80
 Trp Ser Glu Arg Asp Thr Lys Gly Lys Ile Leu Cys Phe Phe Gln Gly
 85 90 95
 Ile Gly Arg Leu Ile Leu Leu Leu Gly Phe Leu Tyr Phe Phe Val Cys
 100 105 110
 Ser Leu Asp Ile Leu Ser Ser Ala Phe Gln Leu Val Gly Gly Lys Met
 115 120 125
 Ala Gly Gln Phe Phe Ser Asn Ser Ser Ile Met Ser Asn Pro Leu Leu
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 Gly Leu Val Ile Gly Val Leu Val Thr Val Leu Val Gln Ser Ser Ser
 145 150 155 160
 Thr Ser Thr Ser Ile Val Val Ser Met Val Ser Ser Ser Leu Leu Thr
 165 170 175
 Val Arg Ala Ala Ile Pro Ile Ile Met Gly Ala Asn Ile Gly Thr Ser
 180 185 190
 Ile Thr Asn Thr Ile Val Ala Leu Met Gln Val Gly Asp Arg Ser Glu
 195 200 205
 Phe Arg Arg Ala Phe Ala Gly Ala Thr Val His Asp Phe Phe Asn Trp

240

210	215	220
Leu Ser Leu Leu Val Leu Leu Pro Val Glu Val Ala Thr His Tyr Leu		
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Glu Ile Ile Thr Gln Leu Ile Val Glu Ser Phe His Phe Lys Asn Gly		
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Glu Asp Ala Pro Asp Leu Leu Lys Val Ile Thr Lys Pro Phe Thr Lys		255
	260	265
Leu Ile Val Gln Leu Asp Lys Lys Val Ile Ser Gln Ile Ala Met Asn		270
	275	280
Asp Glu Lys Ala Lys Asn Lys Ser Leu Val Lys Ile Trp Cys Lys Thr		285
	290	300
Phe Thr Asn Lys Thr Gln Ile Asn Val Thr Val Pro Ser Thr Ala Asn		305
	310	315
Cys Thr Ser Pro Ser Leu Cys Trp Thr Asp Gly Ile Gln Asn Thr Thr		320
	325	330
Met Lys Asn Val Thr Tyr Lys Glu Asn Ile Ala Lys Cys Gln His Ile		335
	340	345
Phe Val Asn Phe His Ile Pro Asp Leu Ala Val Gly Thr Ile Leu Leu		350
	355	360
Ile Leu Ser Leu Leu Val Leu Cys Gly Cys Leu Ile Met Ile Val Lys		365
	370	375
Ile Leu Gly Ser Val Leu Lys Gly Gln Val Ala Thr Val Ile Lys Lys		380
	385	390
Thr Ile Asn Thr Asp Phe Pro Phe Pro Phe Ala Trp Leu Thr Gly Tyr		395
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Leu Ala Ile Leu Val Gly Ala Gly Met Thr Phe Ile Val Gln Ser Ser		415
	420	425
Ser Val Phe Thr Ser Ala Leu Thr Pro Leu Ile Gly Ile Gly Val Ile		430
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Thr Ile Glu Arg Ala Tyr Pro Leu Thr Leu Gly Ser Asn Ile Gly Thr		445
	450	455
Thr Thr Thr Ala Ile Leu Ala Ala Leu Ala Ser Pro Gly Asn Ala Leu		460
	465	470
Arg Ser Ser Leu Gln Ile Ala Leu Cys His Phe Phe Phe Asn Ile Ser		475
	485	490
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	500	505
Met Ala Lys Gly Leu Gly Asn Ile Ser Ala Lys Tyr Arg Trp Phe Ala		510
	515	520
Val Phe Tyr Leu Ile Ile Phe Phe Phe Leu Ile Pro Leu Thr Val Phe		525
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Arg Cys Pro Arg Val Leu Pro Lys Lys Leu Gln Asn Trp Asn Phe Leu		575
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Pro Leu Trp Met Arg Ser Leu Lys Pro Trp Asp Ala Val Val Ser Lys		590
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Phe Thr Gly Cys Phe Gln Met Arg Cys Cys Cys Cys Arg Val Cys		605
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Ser Lys Cys Cys Glu Asp Leu Glu Glu Ala Gln Glu Gly Gln Asp Val		635
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Pro Val Lys Ala Pro Glu Thr Phe Asp Asn Ile Thr Ile Ser Arg Glu		655
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Ala Gln Gly Glu Val Pro Ala Ser Asp Ser Lys Thr Glu Cys Thr Ala		670

675 680 685

Leu

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 <211> 771
 <212> DNA
 <213> Homo sapiens

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<210> 223
 <211> 212
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Leu Ser Pro Glu Gln Cys Ser Asn Phe Tyr Val Glu Lys Tyr Gly Lys
 50 55 60
 Met Phe Phe Pro Asn Leu Thr Ala Tyr Met Ser Ser Gly Pro Leu Val
 65 70 75 80
 Ala Met Ile Leu Ala Arg His Lys Ala Ile Ser Tyr Trp Leu Glu Leu
 85 90 95
 Leu Gly Pro Asn Asn Ser Leu Val Ala Lys Glu Thr His Pro Asp Ser
 100 105 110
 Leu Arg Ala Ile Tyr Gly Thr Asp Asp Leu Arg Asn Ala Leu His Gly
 115 120 125
 Ser Asn Asp Phe Ala Ala Ala Glu Arg Glu Ile Arg Phe Met Phe Pro
 130 135 140
 Glu Val Ile Val Glu Pro Ile Pro Ile Gly Gln Ala Ala Lys Asp Tyr
 145 150 155 160
 Leu Asn Leu His Ile Met Pro Thr Leu Leu Glu Gly Leu Thr Glu Leu
 165 170 175
 Cys Lys Gln Lys Pro Ala Asp Pro Leu Ile Trp Leu Ala Asp Trp Leu
 180 185 190
 Leu Lys Asn Asn Pro Asn Lys Pro Lys Leu Cys His His Pro Ile Val
 195 200 205
 Glu Glu Pro Tyr

210

<210> 224
 <211> 3463
 <212> DNA
 <213> Homo sapiens

<400> 224

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aacgacaatt      ctagacagag      agcagctcact      ggcactcagg      gtcactttgt      tgatttgaag      960
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gagctctgata      agggagagaa      accacaacat      tctgtgatac      ccaaggaagt      gaaccagagc      1080
ctatgcacac      taatgagtag      ctatggcagc      ctctcagggg      cagagagtgat      gcacagaagaa      1140
actcccatca      agactgaagc      agacgttttg      gcagaaaacc      aggttctctga      tagcagtgct      1200
cctcagatgc      caagtcaaga      tgttaaaagc      actgttagaa      atttttcaga      agccaagagt      1260
gagaaacgaa      aaaaagcctt      tgaanaaaca      aaccttaaga      ggaaaaaaga      ttatcacaac      1320
tatcaaaogt      tattcgaaac      aagaacacac      catccatctc      tcttggaagt      gcttctagct      1380
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gggaattatt      taaaataaaa      ccagatcaaa      ttaatacaat      caagaagttt      cgaattgtaa      1980
atattctctta      tttaagacat      gttaaatttc      acctactagc      acgacttaca      tagctcaaat      2040
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acttaattga      agcttttttaa      aaattgttaa      gtaaatgnaa      gctattgaga      tctttttgtc      2160
tctataata      ccagggaatt      tgagcttgtg      ttctagtcac      tgtactagot      gttagctattg      2220
gttgtctctt      ttgacatata      gctaaaaggg      actaaatttg      taaaaaatla      gtttgttata      2280
gttgagagatt      aaccttttct      aacattgtga      tctatgaaat      tcatgaaatc      tgcgttcaag      2340
gaagaaagatt      aagaagctg      atagctctct      catgttggtga      aaatctctct      cagaattctg      2400
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cagtggttttc      cagccttgta      cccaccatc      agatctgttt      atctctgttc      accctactcc      2520
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gtaacactgt      tgagtgtctta      ctctttgtac      ctctattgtg      cctatatata      aggtatataa      2640
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tgattcccaa      ccaactcagg      atgaagtaac      tagtgttaca      actgagttga      tattctaaaa      2760
tataacccag      ttgttacttt      tattactagt      ttgcatacac      attttatggc      ttatgggtta      2820
ataaatgaat      tcatggactc      ctggactact      tgcattgatg      accaatctc      cagggtatgt      2880
gttgatcccc      acactgcctt      aaggtatatt      atagaacag      ttttttttct      catttttctt      2940

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gtttcctgat aataaatgta tttaggactg aaaatactoc tgagtactcc cctggctgta 3000
tgtotgacag tctttagcta tggtagctat tgtttatttt taatgggtat ttoagattcc 3060
aagtgtattt aaaatttcta aggagatata atatagcotg tatggtttct accttatgga 3120
attatatggt caatatattgt aaatatctta tgagttttgg gtgggtagag ggggtgcttg 3180
cotgttttgg gtacaggttt ttttggaatt agottgttaa ttgttcaaac tttctgcctt 3240
ctacattcct atcttattgt tcgtttaatc agttttotgaa atgtaagcat tacatgaacta 3300
ttggtagatt gtgcctttta taactgaatc actttacttt ttctcatatc ctctataaatt 3360
gacttctatt ttctttaatc aaaccagctc tgggaaattt aatacattta tattaattga 3420
gattattaaa acatttggtac tattaataaaa aaaaaaaaaa aaa 3463

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<210> 225

<211> 495

<212> PRT

<213> Homo sapiens

<400> 225

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Met Ala Glu Pro Thr Ser Asp Phe Glu Thr Pro Ile Gly Trp His Ala
1 5 10 15
Ser Pro Glu Leu Thr Pro Thr Leu Gly Pro Leu Ser Asp Thr Ala Pro
20 25 30
Pro Arg Asp Arg Trp Met Phe Trp Ala Met Leu Pro Pro Pro Pro
35 40 45
Pro Leu Thr Ser Ser Leu Pro Ala Ala Gly Ser Lys Pro Ser Ser Glu
50 55 60
Ser Gln Pro Pro Met Glu Ala Gln Ser Leu Pro Gly Ala Pro Pro Pro
65 70 75 80
Phe Asp Ala Gln Ile Leu Pro Gly Ala Gln Pro Pro Phe Asp Ala Gln
85 90 95
Ser Pro Leu Asp Ser Gln Pro Gln Pro Ser Gly Gln Pro Trp Asn Phe
100 105 110
His Ala Ser Thr Ser Trp Tyr Trp Arg Gln Ser Ser Asp Arg Phe Pro
115 120 125
Arg His Gln Lys Ser Phe Asn Pro Ala Val Lys Asn Ser Tyr Tyr Pro
130 135 140
Arg Lys Tyr Asp Ala Lys Phe Thr Asp Phe Ser Leu Pro Pro Ser Arg
145 150 155 160
Lys Gln Lys Lys Lys Lys Arg Lys Glu Pro Val Phe His Phe Phe Cys
165 170 175
Asp Thr Cys Asp Arg Gly Phe Lys Asn Gln Glu Lys Tyr Asp Lys His
180 185 190
Met Ser Glu His Thr Lys Cys Pro Glu Leu Asp Cys Ser Phe Thr Ala
195 200 205
His Glu Lys Ile Val Gln Phe His Trp Arg Asn Met His Ala Pro Gly
210 215 220
Met Lys Lys Ile Lys Leu Asp Thr Pro Glu Glu Ile Ala Arg Trp Arg
225 230 235 240
Glu Glu Arg Arg Lys Asn Tyr Pro Thr Leu Ala Asn Ile Glu Arg Lys
245 250 255
Lys Lys Leu Lys Leu Glu Lys Glu Lys Arg Gly Ala Val Leu Thr Thr
260 265 270
Thr Gln Tyr Gly Lys Met Lys Gly Met Ser Arg His Ser Gln Met Ala
275 280 285
Lys Ile Arg Ser Pro Gly Lys Asn His Lys Trp Lys Asn Asp Asn Ser
290 295 300
Arg Gln Arg Ala Val Thr Gly Ser Gly Ser His Leu Cys Asp Leu Lys
305 310 315 320
Leu Glu Gly Pro Pro Glu Ala Asn Ala Asp Pro Leu Gly Val Leu Ile
325 330 335

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Asn Ser Asp Ser Glu Ser Asp Lys Glu Glu Lys Pro Gln His Ser Val
      340                               345                               350
Ile Pro Lys Glu Val Thr Pro Ala Leu Cys Ser Leu Met Ser Ser Tyr
      355                               360                               365
Gly Ser Leu Ser Gly Ser Glu Ser Glu Pro Glu Glu Thr Pro Ile Lys
      370                               375                               380
Thr Glu Ala Asp Val Leu Ala Glu Asn Gln Val Leu Asp Ser Ser Ala
      385                               390                               395
Pro Lys Ser Pro Ser Gln Asp Val Lys Ala Thr Val Arg Asn Phe Ser
      405                               410                               415
Glu Ala Lys Ser Glu Asn Arg Lys Lys Ser Phe Glu Lys Thr Asn Pro
      420                               425                               430
Lys Arg Lys Lys Asp Tyr His Asn Tyr Gln Thr Leu Phe Glu Pro Arg
      435                               440                               445
Thr His His Pro Tyr Leu Leu Glu Met Leu Leu Ala Pro Asp Ile Arg
      450                               455                               460
His Glu Arg Asn Val Ile Leu Gln Cys Val Arg Tyr Ile Ile Lys Lys
      465                               470                               475                               480
Asp Phe Phe Gly Leu Asp Thr Asn Ser Ala Lys Ser Lys Asp Val
      485                               490                               495

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<210> 226

<211> 942

<212> DNA

<213> Homo sapiens

<400> 226

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gccacctgac  taacacctga  cccatctcag  aagcagaatc  tctagacccc  acagaatgct  180
gtgtcctctg  aagaaaccaa  tgacttttaa  caagagaccc  ttccaagtaa  gtccaacgaa  240
agccatgacc  acatggatga  tatggatgat  gaagatgatg  atgaccatgt  ggacagccag  300
gactccattg  actcgaacga  ctctgatgat  gtatgtgaca  ctgatgttcc  taccagttc  360
gatgagttc  accattctga  tgaatctgat  gaactggtca  ctgattttcc  caaggacctg  420
ccagcaaccy  aagttttcac  tccagtgtgc  cccacagtag  acacatatga  tggcccgaggt  480
gatagtgtgg  tttatggact  gaggtcaaaa  tctaagaagt  ttcgcagacc  tgacatccag  540
taccctgatg  ctacagacga  gcacatcacc  tcacacatgg  aaagcgagga  gttgaatggt  600
gcatacaagg  ccatccccgt  tgcccaggac  ctgaacgcgc  ctcttgattg  ggacagccgt  660
gggaaggaca  gttatgaaac  gagtcaagctg  gatgaccaga  gtgctgaagc  ccacagccac  720
aagcagtcca  gattatataa  ggggaaagct  aatgatgaga  gcaatgagca  ttccgatgtg  780
attgatgtc  aggaactttc  caaagtcagc  cgtgaattcc  acagccatga  atttcacagc  840
catgaagata  tgctggttgt  agaccoccaa  agtaaggaag  aagataaaca  cctgaaattt  900
cgtattttct  atgaattaga  tagtgcattc  tctgaggtca  at                                     942

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<210> 227

<211> 314

<212> PRT

<213> Homo sapiens

<400> 227

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Met Arg Ile Ala Val Ile Cys Phe Cys Leu Leu Gly Ile Thr Cys Ala
  1           5           10           15
Ile Pro Val Lys Gln Ala Asp Ser Gly Ser Ser Glu Lys Gln Leu
      20           25           30
Tyr Asn Lys Tyr Pro Asp Ala Val Ala Thr Trp Leu Asn Pro Asp Pro
      35           40           45
Ser Gln Lys Gln Asn Leu Leu Ala Pro Gln Asn Ala Val Ser Ser Glu

```

50	55	60
Glu Thr Asn Asp Phe Lys	Gln Glu Thr Leu Pro	Ser Lys Ser Asn Glu
65	70	75
Ser His Asp His Met Asp	Asp Met Asp Asp Glu	Asp Asp Asp Asp His
85	90	95
Val Asp Ser Gln Asp Ser	Ile Asp Ser Asn Asp Ser	Asp Asp Asp Val Asp
100	105	110
Asp Thr Asp Asp Ser His	Gln Ser Asp Glu Ser His	His Ser Asp Glu
115	120	125
Ser Asp Glu Leu Val Thr	Asp Phe Pro Thr Asp Leu	Pro Ala Thr Glu
130	135	140
Val Phe Thr Pro Val Val	Pro Thr Val Asp Thr Tyr	Asp Gly Arg Gly
145	150	155
Asp Ser Val Val Tyr Gly	Leu Arg Ser Lys Ser Lys	Lys Phe Arg Arg
165	170	175
Pro Asp Ile Gln Tyr Pro	Asp Ala Thr Asp Glu His	Ile Thr Ser His
180	185	190
Met Glu Ser Glu Glu Leu	Asn Gly Ala Tyr Lys Ala	Ile Pro Val Ala
195	200	205
Gln Asp Leu Asn Ala Pro	Ser Asp Trp Asp Ser Arg	Gly Lys Asp Ser
210	215	220
Tyr Glu Thr Ser Gln Leu	Asp Asp Gln Ser Ala Glu	Ala His Ser His
225	230	235
Lys Gln Ser Arg Leu Tyr	Lys Arg Lys Ala Asn Asp	Glu Ser Asn Glu
245	250	255
His Ser Asp Val Ile Asp	Ser Gln Glu Leu Ser Lys	Val Ser Arg Glu
260	265	270
Phe His Ser His Glu Phe	His Ser His Glu Asp Met	Leu Val Val Asp
275	280	285
Pro Lys Ser Lys Glu Glu	Asp Lys His Leu Lys Phe	Arg Ile Ser His
290	295	300
Glu Leu Asp Ser Ala Ser	Ser Glu Val Asn	
305	310	

<210> 228

<211> 1524

<212> DNA

<213> Homo sapiens

<400> 228

gcagagcaca	gcatcgctcg	gaccagactc	gtctcaggcc	agttgcagcc	ttctcagcca	60
aacgccgacc	aaggaanaact	cactaccatg	agaattgcag	tgatttgcct	ttgctctcta	120
ggcatcacct	gtgccatacc	agttanaacg	gctgattctg	gaagttctga	ggaaaagcag	180
ctttacaaca	aataaccaga	tgctgtggcc	acatggctaa	accctgaccc	atctcagaag	240
cagaattctcc	tagcccacaca	gacccttcca	agtaagtcca	acgaaagcca	tgaccacatg	300
gatgatgatg	atgatgaaga	tgatgatgac	catgtggaca	gccaggactc	cattgactcg	360
aacgactctg	atgatgtaga	tgacactgat	gattctcacc	agtctgatga	tgctcaccat	420
tctgatgaat	ctgatgaact	ggtcactgat	tttccacagg	acctgccagc	aaccgaaagt	480
ttcactccag	ttgtcccccac	agtagacaca	tatgatggcc	gaggtgatag	tggtgtttat	540
ggactgaggt	caaaatctaa	gaagtttcgc	agacctgaca	tccagtaccc	tgatgctaca	600
gacgaggaga	tcacctcaca	catggaaagc	gaggagttag	atggtgcata	caaggccatc	660
cccgttgccc	aggacctgaa	cgcgccttct	gattgggaca	gccgtgggaa	ggaacagttat	720
gaaacaggac	agctggatga	ccagagtgtc	gaaacccaca	gccacaagca	gtccagatga	780
tataagcgga	aagccaatga	tgagagcaat	gagcattccg	atgtgattga	tagtcaggaa	840
ctttccaaag	tcagccgtga	attccacagc	catgaatttc	acagccatga	agatatcgta	900
gttgtagacc	ccaaaagtaa	ggaagaagat	aaacacctga	aatttcgatg	ttctcactga	960
ttagatagtg	catcttctga	ggtcaattaa	aaggagaaaz	aatacaattt	ctcactttgc	1020

246

```

atttagtcaa aagaaaaaat gctttatagc aaatgaaag agaacaatgaa atgcttcttt 1080
ctcagtttat tgggtgaatg tgtatctatt tgagtcctgga aataactaat gtgtttgata 1140
atttagtttag tttgtggctt catggaaact ccctgtaaac taaaagcttc aggggtatgt 1200
ctatgttcat tctatagaag aaatgcaaac tatcactgla ttttaatttt tgtattcttc 1260
tcatgaatag aaatttatgt agaagcaaac aaaactcttt taccacttta aaaagagaat 1320
ataacatttt atgtcactat aatcttttgt tttttaagtt agtgtatat ttgttggatg 1380
tatctttttg tgggtggaat aaactcttta tcttgaaagt aataagaatt tgggtggtgc 1440
aattgcttat ttgttttccc acggttgtcc agcaattaat aaaaacataac cttttttact 1500
gcctaaaaaa aaaaaaaaaa aaaa

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<210> 229

<211> 300

<212> PRT

<213> Homo sapiens

<400> 229

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Met Arg Ile Ala Val Ile Cys Phe Cys Leu Leu Gly Ile Thr Cys Ala
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Ile Pro Val Lys Gln Ala Asp Ser Gly Ser Ser Glu Glu Lys Gln Leu
20 25 30
Tyr Asn Lys Tyr Pro Asp Ala Val Ala Thr Trp Leu Asn Pro Asp Pro
35 40 45
Ser Gln Lys Gln Asn Leu Leu Ala Pro Gln Thr Leu Pro Ser Lys Ser
50 55 60
Asn Glu Ser His Asp His Met Asp Asp Met Asp Asp Glu Asp Asp Asp
65 70 75 80
Asp His Val Asp Ser Gln Asp Ser Ile Asp Ser Asn Asp Ser Asp Asp
85 90 95
Val Asp Asp Thr Asp Asp Ser His Gln Ser Asp Glu Ser His His Ser
100 105 110
Asp Glu Ser Asp Glu Leu Val Thr Asp Phe Pro Thr Asp Leu Pro Ala
115 120 125
Thr Glu Val Phe Thr Pro Val Val Pro Thr Val Asp Thr Tyr Asp Gly
130 135 140
Arg Gly Asp Ser Val Val Tyr Gly Leu Arg Ser Lys Ser Lys Lys Phe
145 150 155 160
Arg Arg Pro Asp Ile Gln Tyr Pro Asp Ala Thr Asp Glu Asp Ile Thr
165 170 175
Ser His Met Glu Ser Glu Glu Leu Asn Gly Ala Tyr Lys Ala Ile Pro
180 185 190
Val Ala Gln Asp Leu Asn Ala Pro Ser Asp Trp Asp Ser Arg Gly Lys
195 200 205
Asp Ser Tyr Glu Thr Ser Gln Leu Asp Asp Gln Ser Ala Glu Thr His
210 215 220
Ser His Lys Gln Ser Arg Leu Tyr Lys Arg Lys Ala Asn Asp Glu Ser
225 230 235 240
Asn Glu His Ser Asp Val Ile Asp Ser Gln Glu Leu Ser Lys Val Ser
245 250 255
Arg Glu Phe His Ser His Glu Phe His Ser His Glu Asp Met Leu Val
260 265 270
Val Asp Pro Lys Ser Lys Glu Glu Asp Lys His Leu Lys Phe Arg Ile
275 280 285
Ser His Glu Leu Asp Ser Ala Ser Ser Glu Val Asn
290 295 300

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<210> 230

<211> 861

<212> DNA

<213> Homo sapiens

<400> 230

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caggctgatt      ctggaagttc      tgaggaaaag      cagaatgctg      tgtcctctga      agaaaccaat      120
gactttaaac      aagagacctt      tccaagtaag      tccaacgaaa      gccatgacca      catggatgat      180
atggatgatg      aagatgatga      tgaccatgtg      gacagccagg      actccattga      ctggaacgac      240
tgtgatgatg      tagatgacac      tgatgatbct      caccagtcgt      atgagtctca      ccattctgat      300
gaatctgatg      aactggtcac      tgattttccc      acggacctgc      cagcaaccca      agttttcact      360
ccagttgtcc      cccagtaga      cacatatgat      ggccgaggtg      atagtgttgt      tlatggagctg      420
aggccaatat      ctaagaagtt      tcgcagacct      gacatccagt      accctgatgc      tacagacgag      480
cacatcacct      cacacatgga      aagcgaggag      ttgaatggtg      cacaacaggc      catccccggt      540
gccaggacc      tgaacgcgcc      ttctgattgg      gacagccgtg      ggaaggacag      tlatgaaacy      600
agtcagctgg      atgaccagag      tgcctgaagcc      cacagccaca      agcagtcagc      attatataag      660
cggaagacta      atgatgagag      caatgagcat      tccgatgtga      ttgatagtca      ggaactttcc      720
aaagtccagc      gtgaattcca      cagccatgaa      ttccacagcc      atgaayatat      gctggttgta      780
gaccccaaaa      gtaagggaaga      agataaacac      ctgaaatttc      gtattttctca      tgaattagat      840
agtcgactct      ctgaggtcaa      t

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<210> 231

<211> 287

<212> PRT

<213> Homo sapiens

<400> 231

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Met Arg Ile Ala Val Ile Cys Phe Cys Leu Leu Gly Ile Thr Cys Ala
 1          5          10          15
Ile Pro Val Lys Gln Ala Asp Ser Gly Ser Ser Glu Glu Lys Gln Asn
 20          25          30
Ala Val Ser Ser Glu Glu Thr Asn Asp Phe Lys Gln Glu Thr Leu Pro
 35          40          45
Ser Lys Ser Asn Glu Ser His Asp His Met Asp Asp Met Asp Asp Glu
 50          55          60
Asp Asp Asp Asp His Val Asp Ser Gln Asp Ser Ile Asp Ser Asn Asp
 65          70          75          80
Ser Asp Asp Val Asp Asp Thr Asp Asp Ser His Gln Ser Asp Glu Ser
 85          90          95
His His Ser Asp Glu Ser Asp Glu Leu Val Thr Asp Phe Pro Thr Asp
100          105          110
Leu Pro Ala Thr Glu Val Phe Thr Pro Val Val Pro Thr Val Asp Thr
115          120          125
Tyr Asp Gly Arg Gly Asp Ser Val Val Tyr Gly Leu Arg Ser Lys Ser
130          135          140
Lys Lys Phe Arg Arg Pro Asp Ile Gln Tyr Pro Asp Ala Thr Asp Glu
145          150          155          160
His Ile Thr Ser His Met Glu Ser Glu Glu Leu Asn Gly Ala Tyr Lys
165          170          175
Ala Ile Pro Val Ala Gln Asp Leu Asn Ala Pro Ser Asp Trp Asp Ser
180          185          190
Arg Gly Lys Asp Ser Tyr Glu Thr Ser Gln Leu Asp Asp Gln Ser Ala
195          200          205
Glu Ala His Ser His Lys Gln Ser Arg Leu Tyr Lys Arg Lys Ala Asn
210          215          220
Asp Glu Ser Asn Glu His Ser Asp Val Ile Asp Ser Gln Glu Leu Ser
225          230          235          240
Lys Val Ser Arg Glu Phe His Ser His Glu Phe His Ser His Glu Asp
245          250          255

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248

Met Leu Val Val Asp Pro Lys Ser Lys Glu Glu Asp Lys His Leu Lys
 260 265 270
 Phe Arg Ile Ser His Glu Leu Asp Ser Ala Ser Ser Glu Val Asn
 275 280 285

<210> 232
 <211> 838
 <212> DNA
 <213> Homo sapiens

<400> 232
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 gttggcaggg aactggcact ccattggccat ggcgaccaac aacatctccc tcatggcgac 180
 actgaagggc cctctgaggg tccacatcac ctcaactgttg cccacccccc aggaacaacct 240
 ggagatcggt ctgcacagat gggagaacaa cagctgtggt gagaagaagg tccctggaga 300
 gaagactgag aatccaagaa agttcaagat caactatacg gtggcgaaag aggccacgct 360
 gctcgatact gactacgaca atttctgtgt tctctgccta caggacacca ccaccccat 420
 ccagagcatg atgtgccagt acctggccag agtctctgtg gaggacgat agatcatgca 480
 gggattcatc agggctttca ggccctggcc caggcaccta tggtaactgc tggactgaa 540
 acagattgaa gagccgtgcc gtttctaggt gagctcctgc ctggctcctgc ctctcggtgc 600
 acctccgctt ccagggaagc cagactccca cccttccaca cctccagagc agtgggactt 660
 cctcctgccc ttccaagaa taaccacagc tcagaagagc atgacgtggt catctgtgtc 720
 gccatcccc tctctgtgca cactgcacc acggccatgg ggaggctgct cctctggggc 780
 agagtctctg gcagaggtta ttaataaacc ctgggagcat gaaaaaaaaa aaaaaaaa 838

<210> 233
 <211> 180
 <212> PRT
 <213> Homo sapiens

<400> 233
 Met Leu Cys Leu Leu Thr Leu Gly Val Ala Leu Val Cys Gly Val
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 Pro Ala Met Asp Ile Pro Gln Thr Lys Gln Asp Leu Glu Leu Pro Lys
 20 25 30
 Leu Ala Gly Thr Trp His Ser Met Ala Met Ala Thr Asn Asn Ile Ser
 35 40 45
 Leu Met Ala Thr Leu Lys Ala Pro Leu Arg Val His Ile Thr Ser Leu
 50 55 60
 Leu Pro Thr Pro Glu Asp Asn Leu Glu Ile Val Leu His Arg Trp Glu
 65 70 75 80
 Asn Asn Ser Cys Val Glu Lys Lys Val Leu Gly Glu Lys Thr Glu Asn
 85 90 95
 Pro Lys Lys Phe Lys Ile Asn Tyr Thr Val Ala Asn Glu Ala Thr Leu
 100 105 110
 Leu Asp Thr Asp Tyr Asp Asn Phe Leu Phe Leu Cys Leu Gln Asp Thr
 115 120 125
 Thr Thr Pro Ile Gln Ser Met Met Cys Gln Tyr Leu Ala Arg Val Leu
 130 135 140
 Val Glu Asp Asp Glu Ile Met Gln Gly Phe Ile Arg Ala Phe Arg Pro
 145 150 155 160
 Leu Pro Arg His Leu Trp Tyr Leu Leu Asp Leu Lys Gln Met Glu Glu
 165 170 175
 Pro Cys Arg Phe
 180

<210> 234
 <211> 851
 <212> DNA
 <213> Homo sapiens

<400> 234
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 gcgctggccct ggtctgtggt gtcccggcca tggacatccc ccagaccaag caggacctgg 120
 agctccc aaa gttggcaggg acctggcact ccattggccat ggccaccaac aacatctccc 180
 tcatggcgac actgaaggcc cctctgaggg tccacatcac ctcaactgttg cccaccccgc 240
 aggacaacct ggagatcgtt ctgcacagat gggagaacaa cagctgtgtt gagaagaagg 300
 tecttggaga gaagactgag aatccaaaga agttcaagat caactatcac gtggcggaacg 360
 aggccacgct gctcgatact gactacgaca atttctgtt tctctgcta caggacacca 420
 ccacccccat ccagagcatg atgtgccagt accctggcag agtctctgtt gaggacgatg 480
 agatcatgca gggattcatc agggcttcca ggcctctgcc caggcaacct tggtaacttg 540
 tggacttgaa acagatggaa gaggcgtgcc gtttctaggt gagctcctgc ctggctctgc 600
 ctctctgggtg acctgtaaac ccaacagctc acctcgcct ccaggaagac cagactccca 660
 cctttccaca cctccagagc agtgggactt cctctgcct tttcaagaa taaccacagc 720
 tcagaagcag atgacgtggt catctgtgtc gccatccct tctgtgtgca cactctgacc 780
 accggcatgg ggaggctgct cctctggggc agagtctctg gcagaggta ttaataaacc 840
 ctggagcat g 851

<210> 235
 <211> 811
 <212> DNA
 <213> Homo sapiens

<400> 235
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 tcacccctgg cgtggccctg gtctgtggtg tccggcccat ggacatcccc cagaccaagc 120
 aggaacctgga gctccc aaag ttggcaggga cctggcactc catggccatg gcgaccaaca 180
 acatctccct catggcgaca ctgaaggccc ctctgagggt ccacatcacc tcaactgttg 240
 ccaccccaga ggacaacctg gagatcgtt tgcaacagat ggagaacaac agctgtgttg 300
 agaagaaggt ccttggagag aagactggga atccaaagaa gtccaagatc aactatacgg 360
 tggcgaaacg ggccacgctg ctcgatactg actacgacaa ttctctgttt ctctgctac 420
 aggaaccacc cacccccac cagagcatga tgtgccagta cctggccaga gctctgtgtg 480
 aggacgatga gatcatcgag ggattcatca gggctttcag gccctgccc aggcacctat 540
 ggtactctgt ggaactgaaa cagatggaa ggcctgccc ttctagctc acctcgcct 600
 ccaggaagac cagaactccca ccttccaca cctccagagc agtgggactt cctctgccc 660
 tttcaagaa taaccacagc tcagaagac atgacgtggt catctgtgtc gccatccct 720
 tctgtgtgca cactctgacc attgccatgg ggaggctgct cctctggggc agagtctctg 780
 gcagaggta ttaataaacc ctggagcat g 811

<210> 236
 <211> 850
 <212> DNA
 <213> Homo sapiens

<400> 236
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 tcacccctgg cgtggccctg gtctgtggtg tccggcccat ggacatcccc cagaccaagc 120
 aggaacctgga gctccc aaag ttggcaggga cctggcactc catggccatg gcgaccaaca 180
 acatctccct catggcgaca ctgaaggccc ctctgagggt ccacatcacc tcaactgttg 240
 ccaccccaga ggacaacctg gagatcgtt tgcaacagat ggagaacaac agctgtgttg 300
 agaagaaggt ccttggagag aagactgrra atccaaagaa gtccaagatc aactatacgg 360
 tggcgaaacg ggccacgctg ctcgatactg actacgacaa ttctctgttt ctctgctac 420
 aggaaccacc cacccccac cagagcatga tgtgccagta cctggccaga gctctgtgtg 480

250

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aggacgatga gatcatgcag ggattcatca gggctttcag gccctgcccc aggcacccat 540
ggtaattgtgt ggaattgaaan cagatgggaag agccgtgccg ttcttagtga cctgtaaacc 600
caacagctca cctccgcctc caggaagacc agactccacc ccttcacac ctcacagaca 660
gtgggaactlc cctctgccct ttcaagaagt aaccacagct cagaagacga tgacgtgggtc 720
atctgtgtcg ccatccctct cctgtctgac acctgcacca cggccatggg gaggtgtgtc 780
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aaaaaaaaaa 850

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<210> 237

<211> 598

<212> DNA

<213> Homo sapiens

<400> 237

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aggacctgga gctcccaaaag gacaccacca ccccatcca gagcatgatg tgcaggtacc 180
tgccagagat cctgggtgag gacgatgaga tcctgcaggg attcatcagg gcttccaggc 240
cctgcgccag gcacctatgg tacttgcctg acttgaaaca gatggaagag ccgtgccgtt 300
ctatagtgag ctctgcctcg gtcctgcctc ctgggtgacc tgtaaaccca acagctcacc 360
tcgcctccca ggaagaccag actccacccc ttccacacct ccagagcagt gggacttccct 420
ctgcctcttt caaagaataa ccacagctca gaagacgatg acgtggtcat ctgtgtgcgc 480
atccctctcc tgctgcacac ctgcaccacg gccatgggga ggctgtccc tgggggcaga 540
gtctctggca gaggttatta ataaacctt ggagcatgaa aaaaaaaaaa 598

```

<210> 238

<211> 86

<212> PRT

<213> Homo sapiens

<400> 238

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Met Leu Cys Leu Leu Leu Thr Leu Gly Val Ala Leu Val Cys Gly Val
1 5 10 15
Pro Ala Met Asp Ile Pro Gln Thr Lys Gln Asp Leu Glu Leu Pro Lys
20 25 30
Asp Thr Thr Thr Pro Ile Gln Ser Met Met Cys Gln Tyr Leu Ala Arg
35 40 45
Val Leu Val Glu Asp Asp Glu Ile Met Gln Gly Phe Ile Arg Ala Phe
50 55 60
Arg Pro Leu Pro Arg His Leu Trp Tyr Leu Leu Asp Leu Lys Gln Met
65 70 75 80
Glu Glu Pro Cys Arg Phe
85

```

<210> 239

<211> 814

<212> DNA

<213> Homo sapiens

<400> 239

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aggacctgga gacctgaag gccctctga ggggtccaat cactcactg ttgccacccc 180
cagaggacaa cctggagatc gttctgcaca gatgggagaa caacagctgt gttgagaaga 240
aggtcctgtg agagaagact grgaatccaa agaagttcaa gatcaactat acgtgtggcg 300
acgaggccac gctgtctgat actgactacg acaatttctc gtttctctgc ctacaggaca 360
ccaccacccc catccagagc atgatgtgac agtacctggc cagagtctct gttggaggagc 420

```

```

atgagatcat gcagggattc atcagggcct tcaggccct gccaggcac ctatgttact 480
tgctggactt gaaacagatg gaagagccgt gccgtttcta ggtgagctcc tgcctggctc 540
tgctctctgg gtgaacctgta aacccaacag ctacacctcg cctccaggaa gaccagactc 600
ccacctctcc acacctccag agcagtgagg cttctctctg ccttttcaaa gaataaccac 660
agctcagaag acgatgaagt ggtcatctgt gtgcacatcc ccttctctgt gcacaactgc 720
accacggcca tggggaggct gctccctggg ggcagagctc ctggcagagg ttattaataa 780
acccttggag catgaaaaaa aaaaaaaaaa aaaa 814

```

<210> 240

<211> 158

<212> PRT

<213> Homo sapiens

<400> 240

```

Met Leu Cys Leu Leu Leu Thr Leu Gly Val Ala Leu Val Cys Gly Val
1 5 10 15
Pro Ala Met Asp Ile Pro Gln Thr Lys Gln Asp Leu Glu Leu Pro Lys
20 25 30
Ala Pro Leu Arg Val His Ile Thr Ser Leu Leu Pro Thr Pro Glu Asp
35 40 45
Asn Leu Glu Ile Val Leu His Arg Trp Glu Asn Asn Ser Cys Val Glu
50 55 60
Lys Lys Val Leu Gly Glu Lys Thr Glu Asn Pro Lys Lys Phe Lys Ile
65 70 75 80
Asn Tyr Thr Val Ala Asn Glu Ala Thr Leu Leu Asp Thr Asp Tyr Asp
85 90 95
Asn Phe Leu Phe Leu Cys Leu Gln Asp Thr Thr Thr Pro Ile Gln Ser
100 105 110
Met Met Cys Gln Tyr Leu Ala Arg Val Leu Val Glu Asp Asp Glu Ile
115 120 125
Met Gln Gly Phe Ile Arg Ala Phe Arg Pro Leu Pro Arg His Leu Trp
130 135 140
Tyr Leu Leu Asp Leu Lys Gln Met Glu Glu Pro Cys Arg Phe
145 150 155

```

<210> 241

<211> 158

<212> PRT

<213> Homo sapiens

<400> 241

```

Met Leu Cys Leu Leu Leu Thr Leu Gly Val Ala Leu Val Cys Gly Val
1 5 10 15
Pro Ala Met Asp Ile Pro Gln Thr Lys Gln Asp Leu Glu Thr Leu Lys
20 25 30
Ala Pro Leu Arg Val His Ile Thr Ser Leu Leu Pro Thr Pro Glu Asp
35 40 45
Asn Leu Glu Ile Val Leu His Arg Trp Glu Asn Asn Ser Cys Val Glu
50 55 60
Lys Lys Val Leu Gly Glu Lys Thr Glu Asn Pro Lys Lys Phe Lys Ile
65 70 75 80
Asn Tyr Thr Val Ala Asn Glu Ala Thr Leu Leu Asp Thr Asp Tyr Asp
85 90 95
Asn Phe Leu Phe Leu Cys Leu Gln Asp Thr Thr Thr Pro Ile Gln Ser
100 105 110
Met Met Cys Gln Tyr Leu Ala Arg Val Leu Val Glu Asp Asp Glu Ile
115 120 125

```

Met Gln Gly Phe Ile Arg Ala Phe Arg Pro Leu Pro Arg His Leu Trp
 130 135 140
 Tyr Leu Leu Asp Leu Lys Gln Met Glu Glu Pro Cys Arg Phe
 145 150 155

<210> 242

<211> 2707

<212> DNA

<213> Homo sapiens

<400> 242

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 aagcagtagg ggcctgcagc cggccggcca gggcagcggc aggcgcggcc cggaccctacg 120
 ggagggaagcc ccgagccctc ggcgggctgc gagcgactcc ccggcgatgc ctcaacaactc 180
 catcagatct ggccatggag ggctgaacca gctggggagg gcttttgtga atggcagacc 240
 tctgcgggaa gtggtccgcc agcgcactgt agacctggcc caccagggtg taaggcgctg 300
 cgacatctct cgcacgtccc gcgtcagcca tggctggctc agcaagatcc ttggcaggta 360
 ctacgagact ggcagctccc ggccctggagt gatagggggc tccaagccca aggtggccac 420
 ccccaaggtg gtggagaaga ttggggacta caaacgccag aacctacca tggttgcctg 480
 ggagatccga gcccggctcc tggctgaggg cgtctgtgac aatgacactg tgcccagtg 540
 cagctccatt aatagaatca tccggaccaa agtcgaccaa ccattcaacc tccctatgga 600
 cagctcgctg gccacacagt cctgagctcc cggacacacg ctgatcccca gtcagctgt 660
 aactccccgc gagtcaaccc agtcggatcc cctgggctcc acctactcca tcaattgggt 720
 cctggggaat gctcagcctg gcagcgacaa gaggaaaatg gatgacagt atcaggatag 780
 ctgcgcacta agcattgact cacagagcag cagcagcggg ccccgaaaag acctcgac 840
 ggaatgcctc agccagcacc acctcgagcc gctcgatgac caatttgagc ggcagcacta 900
 cccagagggc tatgctctcc ccagccacac caaaggcgag cagggcctct acctcgctg 960
 ctctgtcaac agcacctgct accagcggaa ggcacacctg acctctcca acacgccact 1020
 ggggcgcaac cctcgactc accagaccta cccctgggtg cgagatcctc actcaccctt 1080
 gcgcataaag caggaaaccc ccgaggtgtc cagttctagc tccacctctt cctctttatc 1140
 tagctccgcg tttttggatc tgcagcaagt cggctccggg gctccgcctt tcaatgcctt 1200
 tcccatgtct gctctcgtgt acgggcaagt caccggccag gccctctctc cagggcgaga 1260
 gatggtgggg ccggatcgtg ccggataccc accccaatc cccaaccagc gacaggccta 1320
 ctatgctctc tctgccatcg caggcatggt ggcaggaagt gaatactctg gcaattgcta 1380
 tggccacacc cctactcctc cctacagcga ggcctgcygc tcccccaact ccagcttgt 1440
 gagtccccca tattattaca gttccacatc aaggccagat gcaccgccca ccactgccac 1500
 ggcatcttga catctgtagt tgccatgggg acagtggagc cgactgagca acaggaggac 1560
 cgcctctggg acaggcccca gagagtca caaaggaatc ttatttattt actgaaaaaa 1620
 taaccaagag tccagcattg cggcacactc cctgtgtggt taatttaagt aacctagaa 1680
 gacaggatga ccttggacaa ggccaaactg tcttccaaga ctcttaagt aggggcagga 1740
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 ccccacggcg tacccaacaa aggagagaag aagcaatagc cgaggaaact ggggggtagg 1860
 gcaatggctc ctgcocgggc ccaagggtgt cacaggccac ctccatggtc ccattattaa 1920
 caacactcta gcaattatgg accataagca ctccctcca gcccaacagt ccacagctgg 1980
 tgcgagggct ctctccaaca gccacccagg gagtcaactc cctcagctc ccgectgccc 2040
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 gctgaactct ttgctgctgt gctgtgaagg tatagcaca ccccgagctc tctcgagtg 2220
 cggcatcccc ctgagcctg ccgtcagcca ggcacgccc agggagctta aaacagacat 2280
 tccacaggcg ctgggcccct gggaggtgag gtgtggtgt cggtctcacc cagggcagaa 2340
 caaggcagaa tccgcagaaa ccgcttccc gctcctgaca ctctctgca agcaaatgt 2400
 gcttctgca cctcagcccc accagctact gaagggaccc aaggcaccoc ctgaagcag 2460
 cgatagtag ttcctctctg ctcccagca gctcctgccc ccaaggcctg actgtatga 2520
 ctgtcaatga aactttgttt gggtcaagct tcttctcttc taaccccag actttggct 2580
 ctgagtgaaa tgtctctctt tgccctgtgg ggctctcttc ctgtgatct cttctcttt 2640
 ttaaaagcaa cctgcactta ccacatgact caataaaca ctgtctctc aaaaaaaa 2700
 aaaaaaa 2707

<210> 243

<211> 450

<212> PRT

<213> Homo sapiens

<400> 243

```

Met Pro His Asn Ser Ile Arg Ser Gly His Gly Gly Leu Asn Gln Leu
 1          5          10          15
Gly Gly Ala Phe Val Asn Gly Arg Pro Leu Pro Glu Val Val Arg Gln
 20          25          30
Arg Ile Val Asp Leu Ala His Gln Gly Val Arg Pro Cys Asp Ile Ser
 35          40          45
Arg Gln Leu Arg Val Ser His Gly Cys Val Ser Lys Ile Leu Gly Arg
 50          55          60
Tyr Tyr Glu Thr Gly Ser Ile Arg Pro Gly Val Ile Gly Gly Ser Lys
 65          70          75          80
Pro Lys Val Ala Thr Pro Lys Val Val Glu Lys Ile Gly Asp Tyr Lys
 85          90          95
Arg Gln Asn Pro Thr Met Phe Ala Trp Glu Ile Arg Asp Arg Leu Leu
100          105          110
Ala Glu Gly Val Cys Asp Asn Asp Thr Val Pro Ser Val Ser Ser Ile
115          120          125
Asn Arg Ile Ile Arg Thr Lys Val Gln Gln Pro Phe Asn Leu Pro Met
130          135          140
Asp Ser Cys Val Ala Thr Lys Ser Leu Ser Pro Gly His Thr Leu Ile
145          150          155          160
Pro Ser Ser Ala Val Thr Pro Pro Glu Ser Pro Gln Ser Asp Ser Leu
165          170          175
Gly Ser Thr Tyr Ser Ile Asn Gly Leu Leu Gly Ile Ala Gln Pro Gly
180          185          190
Ser Asp Lys Arg Lys Met Asp Asp Ser Asp Gln Asp Ser Cys Arg Leu
195          200          205
Ser Ile Asp Ser Gln Ser Ser Ser Ser Gly Pro Arg Lys His Leu Arg
210          215          220
Thr Asp Ala Phe Ser Gln His His Leu Glu Pro Leu Glu Cys Pro Phe
225          230          235          240
Glu Arg Gln His Tyr Pro Glu Ala Tyr Ala Ser Pro Ser His Thr Lys
245          250          255
Gly Glu Gln Gly Leu Tyr Pro Leu Pro Leu Leu Asn Ser Thr Leu Asp
260          265          270          275
Asp Gly Lys Ala Thr Leu Thr Pro Ser Asn Thr Pro Leu Gly Arg Asn
280          285          290
Leu Ser Thr His Gln Thr Tyr Pro Val Val Ala Asp Pro His Ser Pro
295          300          305
Phe Ala Ile Lys Gln Glu Thr Pro Glu Val Ser Ser Ser Ser Thr
310          315          320
Pro Ser Ser Leu Ser Ser Ser Ala Phe Leu Asp Leu Gln Gln Val Gly
325          330          335
Ser Gly Val Pro Pro Phe Asn Ala Phe Pro His Ala Ala Ser Val Tyr
340          345          350
Gly Gln Phe Thr Gly Gln Ala Leu Leu Ser Gly Arg Glu Met Val Gly
355          360          365
Pro Thr Leu Pro Gly Tyr Pro Pro His Ile Pro Thr Ser Gly Gln Gly
370          375          380
Ser Tyr Ala Ser Ser Ala Ile Ala Gly Met Val Ala Gly Ser Glu Tyr
385          390          395          400
Ser Gly Asn Ala Tyr Gly His Thr Pro Tyr Ser Ser Tyr Ser Glu Ala

```

	405		410		415
Trp Arg Phe	Pro Asn Ser Ser Leu Leu Ser Ser Pro Tyr Tyr Tyr Ser				
	420		425		430
Ser Thr Ser Arg Pro Ser Ala Pro	Pro Thr Thr Ala Thr Ala Phe Asp				
	435		440		445
His Leu					
450					

<210> 244
 <211> 2381
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> misc_feature
 <222> (1)...(2381)
 <223> n = A,T,C or G

<400> 244
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 aggggctttt gtgaatggca gacctctgcc ggaagtgttc cgccagcgca tcgtagacct 120
 ggcccaccag ggtgtaaggc cctgcgcacat ctctcgccag ctctcgctca gccatgggtg 180
 cgtcagcaag atccttggca ggtactacga gactggcagc atccggcctg gagtcatagg 240
 gggtctcaag cccaaggtgg ccaccccocaa ggtgtgtggg aagattgggg actacaaacg 300
 ccagaacctt acctatgttt cctgggagat ccgagaccgg ctctgtgctg agggcgctcg 360
 tgacaatgac actgtgccca gtgtcagctc cattaataga atcatccgga ccaaaagtga 420
 gaacccattc aaactcccta tggacagctg cgtggccacc aagtccctga gtcccgga 480
 cacgctgctc ccagctcag ctgttaactcc ccggagtcga ccccgctggg attccctggg 540
 ctccactcac tccatcaatg ggctcctggg catcgctcag cctggcagcg acaaggaggaa 600
 aatgatgacg agtgatcagg atagctgccg actaagcatt gactcacaga gcagcagcag 660
 cggagcccga aagcaccttc gcacggatgc ctccagocag caccacctcg agccctcctg 720
 gtgccattt ggccggcagc actaccocaga ggctatgcc tccccagcc acaccaaagg 780
 cgagcaggcg cctctacocgc tgcctctgct caacagcaac ctggagcagc ggaaggccag 840
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 ggtggcaggg cgagagatgg tgggguccac gctgcccga tacccacccc acatcccac 960
 cagcggacag ggcagctatg cctcctctgc catcgacggc atgggtggcag gaagtgaata 1020
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 caactccagc ttgctgagtt ccccatatta ttacagttcc acatcaaggc cgagtgacc 1140
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 atgaaacctg aagaacacag atgaccttgg acaaggccaa actgtcctcc aagactcctt 1380
 aatgagggcg aggagtcoca gggaaagaga accatgccat gctgaaaaaa acaaaattga 1440
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 cttgggggga tggcgaatgg ttctctcccg ggcccaggg tgcacagggc acctccatgg 1560
 tctccattat aaacacaactc tagcaattat ggaccataag caactccctc cagcccacaa 1620
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 cccnctgaa gccacggata gnnnggtccc cctctgcttc cccagcagct ctctgcccca 2160
 naggcctgac tgtatatact gtaaatgaaa cttgtgttgc ctcaagcttc cctcttttca 2220
 acccccnaga ctttggctct tagtgaaat gtctctcttt gccctgtggg gctctctctc 2280

255

ttgatgcttc tttctttttt taaagacaac ctgccattac cacatgactc aataaacccat 2340
 tgctotccaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa a 2381

<210> 245

<211> 387

<212> PRT

<213> Homo sapiens

<400> 245

Met Pro His Asn Ser Ile Arg Ser Gly His Gly Gly Leu Asn Gln Leu
 1 5 10 15
 Gly Gly Ala Phe Val Asn Gly Arg Pro Leu Pro Glu Val Val Arg Gln
 20 25 30
 Arg Ile Val Asp Leu Ala His Gln Gly Val Arg Pro Cys Asp Ile Ser
 35 40 45
 Arg Gln Leu Arg Val Ser His Gly Cys Val Ser Lys Ile Leu Gly Arg
 50 55 60
 Tyr Tyr Glu Thr Gly Ser Ile Arg Pro Gly Val Ile Gly Gly Ser Lys
 65 70 75 80
 Pro Lys Val Ala Thr Pro Lys Val Val Glu Lys Ile Gly Asp Tyr Lys
 85 90 95
 Arg Gln Asn Pro Thr Met Phe Ala Trp Glu Ile Arg Asp Arg Leu Leu
 100 105 110
 Ala Glu Gly Val Cys Asp Asn Asp Thr Val Pro Ser Val Ser Ser Ile
 115 120 125
 Asn Arg Ile Ile Arg Thr Lys Val Gln Gln Pro Phe Asn Leu Pro Met
 130 135 140
 Asp Ser Cys Val Ala Thr Lys Ser Leu Ser Pro Gly His Thr Leu Ile
 145 150 155 160
 Pro Ser Ser Ala Val Thr Pro Pro Glu Ser Pro Gln Ser Asp Ser Leu
 165 170 175
 Gly Ser Thr Tyr Ser Ile Asn Gly Leu Leu Gly Ile Ala Gln Pro Gly
 180 185 190
 Ser Asp Lys Arg Lys Met Asp Asp Ser Asp Gln Asp Ser Cys Arg Leu
 195 200 205
 Ser Ile Asp Ser Gln Ser Ser Ser Gly Pro Arg Lys His Leu Arg
 210 215 220
 Thr Asp Ala Phe Ser Gln His His Leu Glu Pro Leu Glu Cys Pro Phe
 225 230 235 240
 Glu Arg Gln His Tyr Pro Glu Ala Tyr Ala Ser Pro Ser His Thr Lys
 245 250 255
 Gly Glu Gln Gly Leu Tyr Pro Leu Pro Leu Leu Asn Ser Thr Leu Asp
 260 265 270
 Asp Gly Lys Ala Thr Leu Thr Pro Ser Asn Thr Pro Leu Gly Arg Asn
 275 280 285
 Leu Ser Thr His Gln Thr Tyr Pro Val Val Ala Gly Arg Glu Met Val
 290 295 300
 Gly Pro Thr Leu Pro Gly Tyr Pro Pro His Ile Pro Thr Ser Gly Gln
 305 310 315 320
 Gly Ser Tyr Ala Ser Ser Ala Ile Ala Gly Met Val Ala Gly Ser Glu
 325 330 335
 Tyr Ser Gly Asn Ala Tyr Gly His Thr Pro Tyr Ser Ser Tyr Ser Glu
 340 345 350
 Ala Trp Arg Phe Pro Asn Ser Ser Leu Leu Ser Ser Pro Tyr Tyr Tyr
 355 360 365
 Ser Ser Thr Ser Arg Pro Ser Ala Pro Pro Thr Thr Ala Thr Ala Phe
 370 375 380
 Asp His Leu

385

<210> 246

<211> 387

<212> PRT

<213> Homo sapiens

<400> 246

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Met Pro His Asn Ser Ile Arg Ser Gly His Gly Gly Leu Asn Gln Leu
 1          5          10          15
Gly Gly Ala Phe Val Asn Gly Arg Pro Leu Pro Glu Val Val Arg Gln
 20          25          30
Arg Ile Val Asp Leu Ala His Gln Gly Val Arg Pro Cys Asp Ile Ser
 35          40          45
Arg Gln Leu Arg Val Ser His Gly Cys Val Ser Lys Ile Leu Gly Arg
 50          55          60
Tyr Tyr Glu Thr Gly Ser Ile Arg Pro Gly Val Ile Gly Gly Ser Lys
 65          70          75
Pro Lys Val Ala Thr Pro Lys Val Val Glu Lys Ile Gly Asp Tyr Lys
 85          90          95
Arg Gln Asn Pro Thr Met Phe Ala Trp Glu Ile Arg Asp Arg Leu Leu
100          105          110
Ala Glu Gly Val Cys Asp Asn Asp Thr Val Pro Ser Val Ser Ser Ile
115          120          125
Asn Arg Ile Ile Arg Thr Lys Val Gln Gln Pro Phe Asn Leu Pro Met
130          135          140
Asp Ser Cys Val Ala Thr Lys Ser Leu Ser Pro Gly His Thr Leu Ile
145          150          155
Pro Ser Ser Ala Val Thr Pro Pro Glu Ser Pro Gln Ser Asp Ser Leu
165          170          175
Gly Ser Thr Tyr Ser Ile Asn Gly Leu Leu Gly Ile Ala Gln Pro Gly
180          185          190
Ser Asp Lys Arg Lys Met Asp Asp Ser Asp Gln Asp Ser Cys Arg Leu
195          200          205
Ser Ile Asp Ser Gln Ser Ser Ser Ser Gly Pro Arg Lys His Leu Arg
210          215          220
Thr Asp Ala Phe Ser Gln His His Leu Glu Pro Leu Glu Cys Pro Phe
225          230          235
Glu Arg Gln His Tyr Pro Glu Ala Tyr Ala Ser Pro Ser His Thr Lys
245          250          255
Gly Glu Gln Gly Leu Tyr Pro Leu Pro Leu Leu Asn Ser Thr Leu Asp
260          265          270
Asp Gly Lys Ala Thr Leu Thr Pro Ser Asn Thr Pro Leu Gly Arg Asn
275          280          285
Leu Ser Thr His Gln Thr Tyr Pro Val Val Ala Gly Arg Glu Met Val
290          295          300
Gly Pro Thr Leu Pro Gly Tyr Pro Pro His Ile Pro Thr Ser Gly Gln
305          310          315
Gly Ser Tyr Ala Ser Ser Ala Ile Ala Gly Met Val Ala Gly Ser Glu
325          330          335
Tyr Ser Gly Asn Ala Tyr Gly His Thr Pro Tyr Ser Ser Tyr Ser Glu
340          345          350
Ala Trp Gly Phe Pro Asn Ser Ser Leu Leu Ser Ser Pro Tyr Tyr Tyr
355          360          365
Ser Ser Thr Ser Arg Pro Ser Ala Pro Pro Thr Thr Ala Thr Ala Phe
370          375          380
Asp His Leu

```

385

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<210> 247
<211> 2641
<212> DNA
<213> Homo sapiens

<220>
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<222> (1)..(2641)
<223> n = A,T,C or G
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2641

<210> 248
 <211> 398
 <212> PRT
 <213> Homo sapiens

<400> 248

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Arg Gln Leu Arg Val Ser His Gly Cys Val Ser Lys Ile Leu Gly Arg
 50           55           60
Tyr Tyr Glu Thr Gly Ser Ile Arg Pro Gly Val Ile Gly Gly Ser Lys
 65           70           75
Pro Lys Val Ala Thr Pro Lys Val Val Glu Lys Ile Gly Asp Tyr Lys
 85           90           95
Arg Gln Asn Pro Thr Met Phe Ala Trp Glu Ile Arg Asp Arg Leu Leu
100           105           110
Ala Glu Gly Val Cys Asp Asn Asp Thr Val Pro Ser Val Ser Ser Ile
115           120           125
Asn Arg Ile Ile Arg Thr Lys Val Gln Gln Pro Phe Asn Leu Pro Met
130           135           140
Asp Ser Cys Val Ala Thr Lys Ser Leu Ser Pro Gly His Thr Leu Ile
145           150           155
Pro Ser Ser Ala Val Thr Pro Pro Glu Ser Pro Gln Ser Asp Ser Leu
165           170           175
Gly Ser Thr Tyr Ser Ile Asn Gly Leu Leu Gly Ile Ala Gln Pro Gly
180           185           190
Ser Asp Lys Arg Lys Met Asp Asp Ser Asp Gln Asp Ser Cys Arg Leu
195           200           205
Ser Ile Asp Ser Gln Ser Ser Ser Ser Gly Pro Arg Lys His Leu Arg
210           215           220
Thr Asp Ala Phe Ser Gln His His Leu Glu Pro Leu Glu Cys Pro Phe
225           230           235
Glu Arg Gln His Tyr Pro Glu Ala Tyr Ala Ser Pro Ser His Thr Lys
245           250           255
Gly Glu Gln Gly Leu Tyr Pro Leu Pro Leu Leu Asn Ser Thr Leu Asp
260           265           270
Asp Gly Lys Ala Thr Leu Thr Pro Ser Asn Thr Pro Leu Gly Arg Asn
275           280           285
Leu Ser Thr His Gln Thr Tyr Pro Val Val Ala Ala Pro Pro Phe Trp
290           295           300
Ile Cys Ser Lys Ser Ala Pro Gly Ser Arg Pro Ser Met Pro Phe Pro
305           310           315
Met Leu Pro Pro Cys Thr Gly Ser Ser Arg Ala Arg Pro Ser Ser Gln
325           330           335
Gly Glu Arg Trp Trp Gly Pro Arg Cys Pro Asp Thr His Pro Thr Ser
340           345           350
Pro Pro Ala Asp Arg Ala Ala Met Pro Pro Leu Pro Ser Gln Ala Trp
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Pro Pro Thr Ala Arg Pro Gly Ala Ser Pro Thr Pro Ala Cys
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<210> 249
 <211> 2410
 <212> DNA
 <213> Hmo sapiens

<220>
 <221> misc_feature
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 <223> n = A,T,C or G

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<210> 250
 <211> 321
 <212> PRT

260

<213> Homo sapiens

<400> 250

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 20           25           30
Arg Ile Val Asp Leu Ala His Gln Gly Val Arg Pro Cys Asp Ile Ser
 35           40           45
Arg Gln Leu Arg Val Ser His Gly Cys Val Ser Lys Ile Leu Gly Arg
 50           55           60
Tyr Tyr Glu Thr Gly Ser Ile Arg Pro Gly Val Ile Gly Gly Ser Lys
 65           70           75
Pro Lys Val Ala Thr Pro Lys Val Val Glu Lys Ile Gly Asp Tyr Lys
 85           90           95
Arg Gln Asn Pro Thr Met Phe Ala Trp Glu Ile Arg Asp Arg Leu Leu
100           105           110
Ala Glu Gly Val Cys Asp Asn Asp Thr Val Pro Ser Val Ser Ser Ile
115           120           125
Asn Arg Ile Ile Arg Thr Lys Val Gln Gln Pro Phe Asn Leu Pro Met
130           135           140
Asp Ser Cys Val Ala Thr Lys Ser Leu Ser Pro Gly His Thr Leu Ile
145           150           155
Pro Ser Ser Ala Val Thr Pro Pro Glu Ser Pro Gln Ser Asp Ser Leu
165           170           175
Gly Ser Thr Tyr Ser Ile Asn Gly Leu Leu Gly Ile Ala Gln Pro Gly
180           185           190
Ser Asp Lys Arg Lys Met Asp Asp Ser Asp Gln Asp Ser Cys Arg Leu
195           200           205
Ser Ile Asp Ser Gln Ser Ser Ser Ser Gly Pro Arg Lys His Leu Arg
210           215           220
Thr Asp Ala Phe Ser Gln His His Leu Glu Pro Leu Glu Cys Pro Phe
225           230           235
Glu Arg Gln His Tyr Pro Glu Ala Tyr Ala Ser Pro Ser His Thr Lys
245           250           255
Gly Glu Gln Gly Glu Arg Trp Trp Gly Pro Arg Cys Pro Asp Thr His
260           265           270
Pro Thr Ser Pro Pro Ala Asp Arg Ala Ala Met Pro Pro Leu Pro Ser
275           280           285
Gln Ala Trp Trp Gln Glu Val Asn Thr Leu Ala Met Pro Met Ala Thr
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<210> 251

<211> 2308

<212> DNA

<213> Homo sapiens

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<221> misc_feature

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<223> n = A,T,C or G

<400> 251

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<210> 252

<211> 287

<212> PRT

<213> Homo sapiens

<400> 252

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Arg Ile Val Asp Leu Ala His Gln Gly Val Arg Pro Cys Asp Ile Ser
35 40 45
Arg Gln Leu Arg Val Ser His Gly Cys Val Ser Lys Ile Leu Gly Arg
50 55 60
Tyr Tyr Glu Thr Gly Ser Ile Arg Pro Gly Val Ile Gly Gly Ser Lys
65 70 75 80
Pro Lys Val Ala Thr Pro Lys Val Val Glu Lys Ile Gly Asp Tyr Lys
85 90 95

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Ala	Glu	Gly	Val	Cys	Asp	Asn	Asp	Thr	Val	Pro	Ser	Val	Ser	Ser	Ile
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Asn	Arg	Ile	Ile	Arg	Thr	Lys	Val	Gln	Gln	Pro	Phe	Asn	Leu	Pro	Met
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Pro	Ser	Ser	Ala	Val	Thr	Pro	Pro	Glu	Ser	Pro	Gln	Ser	Asp	Ser	Leu
			165					170					175		
Gly	Ser	Thr	Tyr	Ser	Ile	Asn	Gly	Leu	Leu	Gly	Ile	Ala	Gln	Pro	Gly
		180						185					190		
Ser	Asp	Lys	Arg	Lys	Met	Asp	Asp	Ser	Asp	Gln	Asp	Ser	Cys	Arg	Leu
		195				200					205				
Ser	Ile	Asp	Ser	Gln	Ser	Ser	Ser	Ser	Gly	Pro	Arg	Lys	His	Leu	Arg
		210				215					220				
Thr	Asp	Ala	Phe	Ser	Gln	His	His	Leu	Glu	Pro	Leu	Glu	Cys	Pro	Phe
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Glu	Arg	Gln	His	Tyr	Pro	Glu	Ala	Tyr	Ala	Ser	Pro	Ser	His	Thr	Lys
			245					250					255		
Gly	Glu	Gln	Glu	Val	Asn	Thr	Leu	Ala	Met	Pro	Met	Ala	Thr	Pro	Pro
			260					265					270		
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		275				280						285			

<210> 253

<211> .2148

<212> DNA

<213> Homo sapiens

<400> 253

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<210> 254

<211> 509

<212> PRT

<213> Homo sapiens

<400> 254

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Pro Arg Glu Leu Phe Pro Pro Leu Phe Met Ala Ala Phe Asp Gly Arg
50 55 60
His Ser Gln Thr Leu Lys Ala Met Val Gln Ala Trp Pro Phe Thr Cys
65 70 75 80
Leu Pro Leu Gly Val Leu Met Lys Gly Gln His Leu His Leu Glu Thr
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Phe Lys Ala Val Leu Asp Gly Leu Asp Val Leu Leu Ala Gln Glu Val
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Arg Pro Arg Arg Trp Lys Leu Gln Val Leu Asp Leu Arg Lys Asn Ser
115 120 125
His Gln Asp Phe Trp Thr Val Trp Ser Gly Asn Arg Ala Ser Leu Tyr
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Ser Tyr Leu Ile Glu Lys Val Lys Arg Lys Lys Asn Val Leu Arg Leu
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Cys Cys Lys Lys Leu Lys Ile Phe Ala Met Pro Met Gln Asp Ile Lys
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Met Ile Leu Lys Met Val Gln Leu Asp Ser Ile Glu Asp Leu Glu Val
225 230 235 240
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275 280 285
Thr Ser Gln Phe Leu Ser Leu Gln Cys Leu Gln Ala Leu Tyr Val Asp
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Met Asn Pro Leu Glu Thr Leu Ser Ile Thr Asn Cys Arg Leu Ser Glu

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Glu	Asp	Ile	His	Gly	Thr	Leu	His	Leu	Glu	Arg	Leu	Ala	Tyr	Leu	His
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Trp	Leu	Ser	Ala	Asn	Pro	Cys	Pro	His	Cys	Gly	Asp	Arg	Thr	Phe	Tyr
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<211> 2261

<212> DNA

<213> Homo sapiens

<400> 255

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265

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<211> 587

<212> PRT

<213> Homo sapiens

<400> 256

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Glu Gly Asp Pro Cys Thr Val Ser Ser Gln Leu Glu Leu Glu Glu Ala
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Phe Arg Leu Tyr Glu Leu Asn Lys Asp Ser Glu Leu Leu Ile His Val
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Lys Ser Ile Tyr Arg Arg Gly Ala Arg Arg Trp Arg Lys Leu Tyr Cys
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Val Thr Ile Glu Cys Gly Arg His Ser Leu Pro Gln Glu Pro Val Met
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Pro Met Asp Gln Ser Ser Met His Ser Asp His Ala Gln Thr Val Ile
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Pro Tyr Asn Pro Ser Ser His Glu Ser Leu Asp Gln Val Gly Glu Glu
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Lys Glu Ala Met Asn Thr Arg Glu Ser Gly Lys Ala Ser Ser Ser Leu
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Ala Lys Val Leu Leu Val Arg Leu Lys Thr Ser Asp Arg Ile Tyr Ala
260 265 270
Met Lys Val Val Lys Lys Glu Leu Val Asn Asp Asp Glu Asp Ile Asp
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Phe Leu Val Gly Leu His Ser Cys Phe Gln Thr Glu Ser Arg Leu Phe
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 Asp Leu Lys Leu Asp Asn Val Leu Leu Asp Ser Glu Gly His Ile Lys
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<211> 6742

<212> DNA

<213> Homo sapiens

<400> 257

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Gly Glu Val Ser Glu Asp Gln Ser Gln Asn Lys His Ser Arg His Lys
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Lys Lys Lys His Lys His Arg Ser Lys His Lys Lys His Lys His Ser
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<210> 261

<211> 1834

<212> DNA

<213> Homo sapiens

<400> 261

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<210> 262
 <211> 343
 <212> PRT
 <213> Homo sapiens

<400> 262

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Glu Gly Val His Val Cys Gly Gly Ser Leu Val Ser Glu Gln Trp Val
 65           70           75
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 85           90           95
Glu Val Lys Leu Gly Ala His Gln Leu Asp Ser Tyr Ser Glu Asp Ala
100          105          110
Lys Val Ser Thr Leu Lys Asp Ile Ile Pro His Pro Ser Tyr Leu Gln
115          120          125
Glu Gly Ser Gln Gly Asp Ile Ala Leu Leu Gln Leu Ser Arg Pro Ile
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145          150          155
Ser Phe Pro Asn Gly Leu His Cys Thr Val Thr Gly Trp Gly His Val
165          170          175
Ala Pro Ser Val Ser Leu Leu Thr Pro Lys Pro Leu Gln Gln Leu Glu
180          185          190
Val Pro Leu Ile Ser Arg Glu Thr Cys Asn Cys Leu Tyr Asn Ile Asp
195          200          205
Ala Lys Pro Glu Glu Pro His Phe Val Gln Glu Asp Met Val Cys Ala
210          215          220
Gly Tyr Val Glu Gly Gly Lys Asp Ala Cys Gln Gly Asp Ser Gly Gly
225          230          235
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245          250          255
Ser Trp Gly Asp Ala Cys Gly Ala Arg Asn Arg Pro Gly Val Tyr Thr
260          265          270
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<210> 263
 <211> 2554
 <212> DNA
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<400> 263

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<210> 264

<211> 599

<212> FRT

<213> Homo sapiens

<400> 264

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Phe Gly Leu Asp Arg Tyr Gln Cys Asp Cys Thr Arg Thr Gly Tyr Ser
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Thr	Asn	Leu	Met	Phe	Ala	Phe	Phe	Ala	Gln	His	Phe	Thr	His	Gln	Phe	
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Tyr	Arg	Lys	Arg	Phe	Gly	Met	Lys	Pro	Tyr	Thr	Ser	Phe	Gln	Glu	Leu	
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Ile	Asp	Ala	Leu	Glu	Phe	Tyr	Pro	Gly	Leu	Leu	Leu	Glu	Lys	Cys	His	
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 Ala Thr Leu Lys Lys Leu Val Cys Leu Asn Thr Lys Thr Cys Pro Tyr
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<210> 265

<211> 3000

<212> DNA

<213> Homo sapiens

<400> 265

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<210> 266

<211> 350

<212> PRT

<213> Homo sapiens

<400> 266

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Trp Asp Lys Asp Tyr Asp Ser Phe Val Leu Pro Leu Leu Glu Asp Lys
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Gln Pro Cys Tyr Ile Leu Phe Arg Leu Asp Ser Gln Asn Ala Gln Gly
 65          70          75          80
Tyr Glu Trp Ile Phe Ile Ala Trp Ser Pro Asp His Ser His Val Arg
 85          90          95
Gln Lys Met Leu Tyr Ala Ala Thr Arg Ala Thr Leu Lys Lys Glu Phe
100          105          110
Gly Gly Gly His Ile Lys Asp Glu Val Phe Gly Thr Val Lys Glu Asp
115          120          125
Val Ser Leu His Gly Tyr Lys Lys Tyr Leu Leu Ser Gln Ser Ser Pro
130          135          140
Ala Pro Leu Thr Ala Ala Glu Glu Leu Arg Gln Ile Lys Ile Asn
145          150          155          160
Glu Val Gln Thr Asp Val Gly Val Asp Thr Lys His Gln Thr Leu Gln
165          170          175          180
Gly Val Ala Phe Pro Ile Ser Arg Glu Ala Phe Gln Ala Leu Glu Lys
180          185          190          195
Leu Asn Asn Arg Gln Leu Asn Tyr Val Gln Leu Glu Ile Asp Ile Lys
195          200          205          210
Asn Glu Ile Ile Ile Leu Ala Asn Thr Thr Asn Thr Glu Leu Lys Asp
210          215          220          225
Leu Pro Lys Arg Ile Pro Lys Asp Ser Ala Arg Tyr His Phe Phe Leu
225          230          235          240
Tyr Lys His Ser His Glu Gly Asp Tyr Leu Glu Ser Ile Val Phe Ile
245          250          255          260
Tyr Ser Met Pro Gly Tyr Thr Cys Ser Ile Arg Glu Arg Met Leu Tyr
260          265          270          275
Ser Ser Cys Lys Ser Arg Leu Leu Glu Ile Val Glu Arg Gln Leu Gln
275          280          285          290
Met Asp Val Ile Arg Lys Ile Glu Ile Asp Asn Gly Asp Glu Leu Thr
290          295          300          305
Ala Asp Phe Leu Tyr Glu Glu Val His Pro Lys Gln His Ala His Lys
305          310          315          320

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280

Gln Ser Phe Ala Lys Pro Lys Gly Pro Ala Gly Lys Arg Gly Ile Arg
 325 330 335
 Arg Leu Ile Arg Gly Pro Ala Glu Thr Glu Ala Thr Thr Asp
 340 345 350

<210> 267

<211> 358

<212> DNA

<213> Homo sapiens

<400> 267

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 tgtgcgcgac gggctcagaa ttagcccca tgggcgggac tggaggctcg gtggacggcc 120
 ttgcaggagg taccgggaac tccacgagtg acctcgcgat ctggcccgcc tccgcttctg 180
 cgcaacagcg tgactacagg gtatggcggg gtcggggcac tgtgcggctg gacccccagt 240
 ctgtggggcca cgcccggaac ccgcttactg ctgcagcttt tggggtcgcc cgggccggcg 300
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<210> 268

<211> 103

<212> PRT

<213> Homo sapiens

<400> 268

Met Trp Arg Val Cys Ala Arg Arg Ala Gln Asn Val Ala Pro Trp Ala
 1 5 10 15
 Gly Leu Glu Ala Arg Trp Thr Ala Leu Gln Glu Val Pro Gly Thr Pro
 20 25 30
 Arg Val Thr Ser Arg Ser Gly Pro Ala Pro Val Arg Arg Asn Ser Val
 35 40 45
 Thr Thr Gly Tyr Gly Gly Val Arg Ala Leu Cys Gly Trp Thr Pro Ser
 50 55 60
 Ser Gly Ala Thr Pro Arg Asn Arg Leu Leu Leu Gln Leu Leu Gly Ser
 65 70 75 80
 Pro Gly Arg Arg Tyr Ser Leu Pro Pro His Gln Lys Val Pro Leu
 85 90 95
 Pro Ser Leu Ser Pro Thr Met
 100

<210> 269

<211> 607

<212> DNA

<213> Homo sapiens

<400> 269

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 ctgagctgga gacggcgatg gagaccctca tcaactgttt ccacgcccac tcgggcgcaag 180
 agggggacaa gtacaagctg agcaagaagg agctgaaga gctgctgcag acggagctct 240
 ctggcttctc ggatgccag aaggatgtgg atgctgtgga caaggtgatg aaggagctag 300
 acgagaatgg agacggggag gtggacttcc aggaagtatg ggtgctgtg gctgctctca 360
 cagtggcctg taacaatttc ttctgggaga acagttgagc agacagccac attgggcagc 420
 gcccttcttc tccacctcc cagacctgcc tcttcccoct gcttccacct caccocactt 480
 atccctctcc ataaccacc ccttgcccac cccaccacca cggcgcaaga 540
 gtacgggtgc aagcctgcaa ctcatcttcc attaaaggct tctctctcac cagcaaaaaa 600
 aaaaaa 607

281

<210> 270

<211> 94

<212> PRT

<213> Homo sapiens

<400> 270

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Met Gly Ser Glu Leu Glu Thr Ala Met Glu Thr Leu Ile Asn Val Phe
 1          5          10          15
His Ala His Ser Gly Lys Glu Gly Asp Lys Tyr Lys Leu Ser Lys Lys
 20          25          30
Glu Leu Lys Glu Leu Leu Gln Thr Glu Leu Ser Gly Phe Leu Asp Ala
 35          40          45
Gln Lys Asp Val Asp Ala Val Asp Lys Val Met Lys Glu Leu Asp Glu
 50          55          60
Asn Gly Asp Gly Glu Val Asp Phe Gln Glu Tyr Val Val Leu Val Ala
 65          70          75          80
Ala Leu Thr Val Ala Cys Asn Asn Phe Phe Trp Glu Asn Ser
      85          90

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<210> 271

<211> 595

<212> DNA

<213> Homo sapiens

<400> 271

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alggcaaaaaa tctccagccc tacagagact gagcggtyga tcgagtcctt gattgtgtc 180
ttccagaagt atgctggaaa ggaatggttat aactacactc tctccaagac agagtcccta 240
agcttcattga atacagaact agctgccttc acaagaagcc agaaggaccc tgggttcctt 300
gaccgcatga tgaagaaact ggacaccac acgtgatgttc agctagattt ctcagaattt 360
cttaattctga ttgtgtggcct agctatggct tgccatgact cttcctctcaa ggctgtccct 420
tcccagaagc ggacctgagg accccttgcc cctggccttc aaaccacccc cctttccttc 480
cagcctttctt gtcatcatct ccacagccca cccatccccc gagcacacta accacctcat 540
gcaggcccca cctgccaata gtaataaagc aatgtcactt ttttaaaaga tgaaa 595

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<210> 272

<211> 105

<212> PRT

<213> Homo sapiens

<400> 272

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Met Ala Lys Ile Ser Ser Pro Thr Glu Thr Glu Arg Cys Ile Glu Ser
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Leu Ile Ala Val Phe Gln Lys Tyr Ala Gly Lys Asp Gly Tyr Asn Tyr
 20          25          30
Thr Leu Ser Lys Thr Glu Phe Leu Ser Phe Met Asn Thr Glu Leu Ala
 35          40          45
Ala Phe Thr Lys Asn Gln Lys Asp Pro Gly Val Leu Asp Arg Met Met
 50          55          60
Lys Lys Leu Asp Thr Asn Ser Asp Gly Gln Leu Asp Phe Ser Glu Phe
 65          70          75          80
Leu Asn Leu Ile Gly Gly Leu Ala Met Ala Cys His Asp Ser Phe Leu
      85          90          95
Lys Ala Val Pro Ser Gln Lys Arg Thr
      100          105

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<210> 273
 <211> 428
 <212> DNA
 <213> Homo sapiens

<400> 273
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 caagctgagt aagggggaaa tgaaggaaact tctgcacaaq gagctgcccc gctttgtggg 180
 ggagaaagt gatgaggagg ggcagaagaa gctgatgggc agcctggatg agaacagtga 240
 ccagcagggt gacttccagg agtatgctgt tttcctggca ctcatcactg tcatgtgcaa 300
 tgacttcttc cagggtgcc cagaccgacc ctgaagcaga actcttgact tcctggccatg 360
 gatctcttgg gccacaggact gttgatgcct ttgagttttg tattoaataa actttttttg 420
 tctgttga 428

<210> 274
 <211> 97
 <212> PRT
 <213> Homo sapiens

<400> 274
 Met Cys Ser Ser Leu Glu Gln Ala Leu Ala Val Leu Val Thr Thr Phe
 1 5 10 15
 His Lys Tyr Ser Cys Gln Glu Gly Asp Lys Phe Lys Leu Ser Lys Gly
 20 25 30
 Glu Met Lys Glu Leu Leu His Lys Glu Leu Pro Ser Phe Val Gly Glu
 35 40 45
 Lys Val Asp Glu Glu Gly Leu Lys Lys Leu Met Gly Ser Leu Asp Glu
 50 55 60
 Asn Ser Asp Gln Gln Val Asp Phe Gln Glu Tyr Ala Val Phe Leu Ala
 65 70 75 80
 Leu Ile Thr Val Met Cys Asn Asp Phe Phe Gln Gly Cys Pro Asp Arg
 85 90 95
 Pro

<210> 275
 <211> 470
 <212> DNA
 <213> Homo sapiens

<400> 275
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 catttggccg cctccctacc gctccaagcc cagccctcag ccatggcatg ccccttggat 120
 oaggccattg gccctctcgt gcccatcttc cacaagtact ccggcaggga gggtagacaag 180
 oacacccctga gcaagaagga gctgaaggag ctgatccaga aggagctcac cattggctcg 240
 aagcgcagag atgctgaaat tgcaaggctg atggaagact tggaccggaa caaggaccag 300
 gagggtgaact tccaggagta tgcaccttc ctgggggcct tggctttgat ctacaatgaa 360
 gccctoaagg gctgaaaata aatagggaag atggagacac ctctgggggt cctctctgag 420
 tcaaatccag tgggtgggtaa ttgtacaata aatttttttt ggtcaaat 470

<210> 276
 <211> 90
 <212> PRT
 <213> Homo sapiens

<400> 276

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Met Ala Cys Pro Leu Asp Gln Ala Ile Gly Leu Leu Val Ala Ile Phe
 1           5           10           15
His Lys Tyr Ser Gly Arg Glu Gly Asp Lys His Thr Leu Ser Lys Lys
           20           25           30
Glu Leu Lys Glu Leu Ile Gln Lys Glu Leu Thr Ile Gly Ser Lys Leu
           35           40           45
Gln Asp Ala Glu Ile Ala Arg Leu Met Glu Asp Leu Asp Arg Asn Lys
           50           55           60
Asp Gln Glu Val Asn Phe Gln Glu Tyr Val Thr Phe Leu Gly Ala Leu
           65           70           75           80
Ala Leu Ile Tyr Asn Glu Ala Leu Lys Gly
           85           90

```

<210> 277

<211> 3151

<212> DNA

<213> Homo sapiens

<400> 277

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gaggcaggacc cttagacctct ccagcccata ccaggcttcca tggaggggaa caagctggag 120
gaggcaggacc cttagccctcc acagtccaact ccagggtcca tgaaggggaa caagcgtgag 180
gaggcaggacc tggcccccga acctgcggcg cccagcagac ccacggcgga ggagcaggcc 240
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gcagtgtgtt ggcctctgcac ctttggcatg atgtactggc aattcgccct gcttctcttc 420
gagtacttca gctaccocct cagcctcaac atcaacctca actcgacaa ctcgtctctc 480
ccgcagtgga ccactctgcac cctcaatccc tacaggtagc cggaattaa agaggagctg 540
gaggagctgg accgatcac agagcagacg ctctttgacc tgtacaaata cagctccttc 600
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ttgcagcgcc tgggggtccc gcccccctt ccaggggccc ctccagcccg tagcgtggcc 720
tccagcttgc gggacacaaa ccccagggtg gactggaagg actggaagat cggcttccag 780
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<210> 278

<211> 669

<212> PRT

<213> Homo sapiens

<400> 278

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Thr Pro Gly Leu Met Lys Gly Asn Lys Arg Glu Glu Gln Gly Leu Gly
20 25 30
Pro Glu Pro Ala Ala Pro Gln Gln Pro Thr Ala Glu Glu Glu Ala Leu
35 40 45
Ile Glu Phe His Arg Ser Tyr Arg Glu Leu Phe Glu Phe Phe Cys Asn
50 55 60
Asn Thr Thr Ile His Gly Ala Ile Arg Leu Val Cys Ser Gln His Asn
65 70 75 80
Arg Met Lys Thr Ala Phe Trp Ala Val Leu Trp Leu Cys Thr Phe Gly
85 90 95
Met Met Tyr Trp Gln Phe Gly Leu Leu Phe Gly Glu Tyr Phe Ser Tyr
100 105 110
Pro Val Ser Leu Asn Ile Asn Leu Asn Ser Asp Lys Leu Val Phe Pro
115 120 125
Ala Val Thr Ile Cys Thr Leu Asn Pro Tyr Arg Tyr Pro Glu Ile Lys
130 135 140
Glu Glu Leu Glu Glu Leu Asp Arg Ile Thr Glu Gln Thr Leu Phe Asp
145 150 155 160
Leu Tyr Lys Tyr Ser Ser Phe Thr Thr Leu Val Ala Gly Ser Arg Ser
165 170 175
Arg Arg Asp Leu Arg Gly Thr Leu Pro His Pro Leu Gln Arg Leu Arg
180 185 190
Val Pro Pro Pro His Gly Ala Arg Arg Ala Arg Ser Val Ala Ser
195 200 205
Ser Leu Arg Asp Asn Asn Pro Gln Val Asp Trp Lys Asp Trp Lys Ile
210 215 220
Gly Phe Gln Leu Cys Asn Gln Asn Lys Ser Asp Cys Phe Tyr Gln Thr
225 230 235 240
Tyr Ser Ser Gly Val Asp Ala Val Arg Glu Trp Tyr Arg Phe His Tyr
245 250 255
Ile Asn Ile Leu Ser Arg Leu Pro Glu Thr Leu Pro Ser Leu Glu Glu
260 265 270

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```

Asp Thr Leu Gly Asn Phe Ile Phe Ala Cys Arg Phe Asn Gln Val Ser
      275                280                285
Cys Asn Gln Ala Asn Tyr Ser His Phe His His Pro Met Tyr Gly Asn
      290                295                300
Cys Tyr Thr Phe Asn Asp Lys Asn Asn Ser Asn Leu Trp Met Ser Ser
      305                310                315                320
Met Pro Gly Ile Asn Asn Gly Leu Ser Leu Met Leu Arg Ala Gln Gln
      325                330                335
Asn Asp Phe Ile Pro Leu Leu Ser Thr Val Thr Gly Ala Arg Val Met
      340                345                350
Val His Gly Gln Asp Glu Pro Ala Phe Met Asp Asp Gly Gly Phe Asn
      355                360                365
Leu Arg Pro Gly Val Glu Thr Ser Ile Ser Met Arg Lys Glu Thr Leu
      370                375                380
Asp Arg Leu Gly Gly Asp Tyr Gly Asp Cys Thr Lys Asn Gly Ser Asp
      385                390                395                400
Val Pro Val Glu Asn Leu Tyr Pro Ser Lys Tyr Thr Gln Gln Val Cys
      405                410                415
Ile His Ser Cys Phe Gln Glu Ser Met Ile Lys Glu Cys Gly Cys Ala
      420                425                430
Tyr Ile Phe Tyr Pro Arg Pro Gln Asn Val Glu Tyr Cys Asp Tyr Arg
      435                440                445
Lys His Ser Ser Trp Gly Tyr Cys Tyr Tyr Lys Leu Gln Val Asp Phe
      450                455                460
Ser Ser Asp His Leu Gly Cys Phe Thr Lys Cys Arg Lys Pro Cys Ser
      465                470                475                480
Val Thr Ser Tyr Gln Leu Ser Ala Gly Tyr Ser Arg Trp Pro Ser Val
      485                490                495
Thr Ser Gln Glu Trp Val Phe Gln Met Leu Ser Arg Gln Asn Asn Tyr
      500                505                510
Thr Val Asn Asn Lys Arg Asn Gly Val Ala Lys Val Asn Ile Phe Phe
      515                520                525
Lys Glu Leu Asn Tyr Lys Thr Asn Ser Glu Ser Pro Ser Val Thr Met
      530                535                540
Val Thr Leu Leu Ser Asn Leu Gly Ser Gln Trp Ser Leu Trp Phe Gly
      545                550                555                560
Ser Ser Val Leu Ser Val Val Glu Met Ala Glu Leu Val Phe Asp Leu
      565                570                575
Leu Val Ile Met Phe Leu Met Leu Leu Arg Arg Phe Arg Ser Arg Tyr
      580                585                590
Trp Ser Pro Gly Arg Gly Gly Arg Gly Ala Gln Glu Val Ala Ser Thr
      595                600                605
Leu Ala Ser Ser Pro Pro Ser His Phe Cys Pro His Pro Met Ser Leu
      610                615                620
Ser Leu Ser Gln Pro Gly Pro Ala Pro Ser Pro Ala Leu Thr Ala Pro
      625                630                635                640
Pro Pro Ala Tyr Ala Thr Leu Gly Pro Arg Pro Ser Pro Gly Gly Ser
      645                650                655
Ala Gly Ala Ser Ser Ser Thr Cys Pro Leu Gly Gly Pro
      660                665

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<210> 279

<211> 3174

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature
 <222> (1)... (3174)
 <223> n = A,T,C or G

<400> 279

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aggactctag  cccctccacg  tccactccag  ggtcatgaa  ggggaacaag  ctggaggagc  180
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tcgagttcca  cgcgctctac  cyagagctct  toaggtttct  ctgcaacaac  accoacatcc  300
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<210> 280
 <211> 669
 <212> PRT
 <213> Homo sapiens

<400> 280
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 35 40 45
 Ile Glu Phe His Arg Ser Tyr Arg Glu Leu Phe Glu Phe Phe Cys Asn
 50 55 60
 Asn Thr Thr Ile His Gly Ala Ile Arg Leu Val Cys Ser Gln His Asn
 65 70 75 80
 Arg Met Lys Thr Ala Phe Trp Ala Val Leu Trp Leu Cys Thr Phe Gly
 85 90 95
 Met Met Tyr Trp Gln Phe Gly Leu Leu Phe Gly Glu Tyr Phe Ser Tyr
 100 105 110
 Pro Val Ser Leu Asn Ile Asn Leu Asn Ser Asp Lys Leu Val Phe Pro
 115 120 125
 Ala Val Thr Ile Cys Thr Leu Asn Pro Tyr Arg Tyr Pro Glu Ile Lys
 130 135 140
 Glu Glu Leu Glu Glu Leu Asp Arg Ile Thr Glu Gln Thr Leu Phe Asp
 145 150 155 160
 Leu Tyr Lys Tyr Ser Ser Phe Thr Thr Leu Val Ala Gly Ser Arg Ser
 165 170 175
 Arg Arg Asp Leu Arg Gly Thr Leu Pro His Pro Leu Gln Arg Leu Arg
 180 185 190
 Val Pro Pro Pro Pro His Gly Ala Arg Arg Ala Arg Ser Val Ala Ser
 195 200 205
 Ser Leu Arg Asp Asn Asn Pro Gln Val Asp Trp Lys Asp Trp Lys Ile
 210 215 220
 Gly Phe Gln Leu Cys Asn Gln Asn Lys Ser Asp Cys Phe Tyr Gln Thr
 225 230 235 240
 Tyr Ser Ser Gly Val Asp Ala Val Arg Glu Trp Tyr Arg Phe His Tyr
 245 250 255
 Ile Asn Ile Leu Ser Arg Leu Pro Glu Thr Leu Pro Ser Leu Glu Glu
 260 265 270
 Asp Thr Leu Gly Asn Phe Ile Phe Ala Cys Arg Phe Asn Gln Val Ser
 275 280 285
 Cys Asn Gln Ala Asn Tyr Ser His Phe His His Pro Met Tyr Gly Asn
 290 295 300
 Cys Tyr Thr Phe Asn Asp Lys Asn Asn Ser Asn Leu Trp Met Ser Ser
 305 310 315 320
 Met Pro Gly Ile Asn Asn Gly Leu Ser Leu Met Leu Arg Ala Glu Gln
 325 330 335
 Asn Asp Phe Ile Pro Leu Leu Ser Thr Val Thr Gly Ala Arg Val Met
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 Val His Gly Gln Asp Glu Pro Ala Phe Met Asp Asp Gly Gly Phe Asn
 355 360 365
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 385 390 395 400
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<210> 282

<211> 176

<212> PRT

<213> Homo sapiens

<400> 282

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Arg Thr Tyr Ser Gly Ala Phe Val Cys Leu Glu Ile Leu Phe Gly Gly
35 40 45
Leu Val Trp Ile Leu Val Ala Ser Ser Asn Val Pro Leu Pro Leu Leu
50 55 60
Gln Gly Trp Val Met Phe Val Ser Val Thr Ala Phe Phe Phe Ser Leu
65 70 75 80
Leu Phe Leu Gly Met Phe Leu Ser Gly Met Val Ala Gln Ile Asp Ala
85 90 95
Asn Trp Asn Phe Leu Asp Phe Ala Tyr His Phe Thr Val Phe Val Phe
100 105 110
Tyr Phe Gly Ala Phe Leu Leu Glu Ala Ala Ala Thr Ser Leu His Asp
115 120 125
Leu His Cys Asn Thr Thr Ile Thr Gly Gln Pro Leu Leu Ser Asp Asn
130 135 140
Gln Tyr Asn Ile Asn Val Ala Ala Ser Ile Phe Ala Phe Met Thr Thr

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290

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 165 170 175

<210> 283
 <211> 2530
 <212> DNA
 <213> Homo sapiens

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<210> 284
 <211> 771
 <212> PRT

<213> Homo sapiens

<400> 284

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Lys Leu Ser Tyr Lys Glu Met Leu Glu Ser Asn Asn Val Ile Thr Phe
 35      40      45
Asn Gly Leu Ala Asn Ser Ser Ser Tyr His Thr Phe Leu Leu Asp Glu
 50      55      60
Glu Arg Ser Arg Leu Tyr Val Gly Ala Lys Asp His Ile Phe Ser Phe
 65      70      75      80
Asp Leu Val Asn Ile Lys Asp Phe Gln Lys Ile Val Trp Pro Val Ser
 85      90      95
Tyr Thr Arg Arg Asp Glu Cys Lys Trp Ala Gly Lys Asp Ile Leu Lys
100      105      110
Glu Cys Ala Asn Phe Ile Lys Val Leu Lys Ala Tyr Asn Gln Thr His
115      120      125
Leu Tyr Ala Cys Gly Thr Gly Ala Phe His Pro Ile Cys Thr Tyr Ile
130      135      140
Glu Ile Gly His His Pro Glu Asp Asn Ile Phe Lys Leu Glu Asn Ser
145      150      155      160
His Phe Glu Asn Gly Arg Gly Lys Ser Pro Tyr Asp Pro Lys Leu Leu
165      170      175
Thr Ala Ser Leu Leu Ile Asp Gly Glu Leu Tyr Ser Gly Thr Ala Ala
180      185      190
Asp Phe Met Gly Arg Asp Phe Ala Ile Phe Arg Thr Leu Gly His His
195      200      205
His Pro Ile Arg Thr Glu Gln His Asp Ser Arg Trp Leu Asn Asp Pro
210      215      220
Lys Phe Ile Ser Ala His Leu Ile Ser Glu Ser Asp Asn Pro Glu Asp
225      230      235      240
Asp Lys Val Tyr Phe Phe Phe Arg Glu Asn Ala Ile Asp Gly Glu His
245      250      255
Ser Gly Lys Ala Thr His Ala Arg Ile Gly Gln Ile Cys Lys Asn Asp
260      265      270
Phe Gly Gly His Arg Ser Leu Val Asn Lys Trp Thr Thr Phe Leu Lys
275      280      285
Ala Arg Leu Ile Cys Ser Val Pro Gly Pro Asn Gly Ile Asp Thr His
290      295      300
Phe Asp Glu Leu Gln Asp Val Phe Leu Met Asn Phe Lys Asp Pro Lys
305      310      315      320
Asn Pro Val Val Tyr Gly Val Phe Thr Thr Ser Ser Asn Ile Phe Lys
325      330      335
Gly Ser Ala Val Cys Met Tyr Ser Met Ser Asp Val Arg Arg Val Phe
340      345      350
Leu Gly Pro Tyr Ala His Arg Asp Gly Pro Asn Tyr Gln Trp Val Pro
355      360      365
Tyr Gln Gly Arg Val Pro Tyr Pro Arg Pro Gly Thr Cys Pro Ser Lys
370      375      380
Thr Phe Gly Gly Phe Asp Ser Thr Lys Asp Leu Pro Asp Asp Val Ile
385      390      395      400
Thr Phe Ala Arg Ser His Pro Ala Met Tyr Asn Pro Val Phe Pro Met
405      410      415
Asn Asn Arg Pro Ile Val Ile Lys Thr Asp Val Asn Tyr Gln Phe Thr
420      425      430
Gln Ile Val Val Asp Arg Val Asp Ala Glu Asp Gly Gln Tyr Asp Val

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292

	435		440		445	
Met	Phe	Ile	Gly	Thr	Asp	Val
450						
Pro	Lys	Glu	Thr	Trp	Tyr	Asp
465						
Thr	Val	Phe	Arg	Glu	Pro	Thr
Lys	Gln	Gln	Gln	Leu	Tyr	Ile
Pro	Leu	His	Arg	Cys	Asp	Ile
Leu	Ala	Arg	Asp	Pro	Tyr	Cys
Tyr	Phe	Pro	Thr	Ala	Lys	Arg
Gly	Asp	Pro	Leu	Thr	His	Cys
Gly	His	Ser	Pro	Glu	Glu	Arg
Thr	Phe	Leu	Glu	Cys	Ser	Pro
Gln	Phe	Gln	Arg	Arg	Asn	Glu
Asp	His	Ile	Ile	Arg	Thr	Asp
Gln	Lys	Asp	Ser	Gly	Asn	Tyr
Ile	Gln	Thr	Leu	Leu	Lys	Val
Leu	Glu	Glu	Leu	Leu	His	Lys
Lys	Glu	Met	Ser	Asn	Ser	Met
Asp	Phe	Met	Gln	Leu	Ile	Asn
Phe	Cys	Glu	Gln	Val	Trp	Lys
Pro	Gly	His	Thr	Pro	Gly	Asn
Asn	Lys	Lys	Gly	Arg	Asn	Arg
Arg	Ser	Val				

<210> 285

<211> 3041

<212> DNA

<213> Homo sapiens

<400> 285

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293

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<210> 286

<211> 418

<212> PRT

<213> Homo sapiens

<400> 286

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20 25 30
Gln Lys Thr Asp Thr Ser His His Asp Gln Asp His Pro Thr Phe Asn
35 40 45
Lys Ile Thr Pro Asn Leu Ala Glu Phe Ala Phe Ser Leu Tyr Arg Gln

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Leu Ala His Gln Ser	Asn Ser Thr Asn Ile Phe	Ser Pro Val Ser	
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Ile Ala Thr Ala Phe	Ala Met Leu Ser Leu Gly Thr	Lys Ala Asp Thr	
85	90	95	
His Asp Glu Ile	Leu Glu Gly Leu Asn Phe Asn Leu Thr	Glu Ile Pro	
100	105	110	
Glu Ala Gln Ile	His Glu Gly Phe Gln Glu Leu Leu Arg Thr	Leu Asn	
115	120	125	
Gln Pro Asp Ser	Gln Leu Gln Thr Thr Gly Asn Gly	Leu Phe Leu	
130	135	140	
Ser Glu Gly Leu Lys	Leu Val Asp Lys Phe Leu Glu Asp Val Lys Lys		
145	150	155	160
Leu Tyr His Ser	Glu Ala Phe Thr Val Asn Phe Gly Asp Thr	Gln Glu	
165	170	175	
Ala Lys Lys Gln	Ile Asn Asp Tyr Val Glu Lys Gly Thr	Gln Gly Lys	
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Ile Val Asp Leu	Val Lys Glu Leu Asp Arg Asp Thr	Val Phe Ala Leu	
195	200	205	
Val Asn Tyr Ile	Phe Phe Lys Gly Lys Trp Glu Arg Pro	Phe Glu Val	
210	215	220	
Lys Asp Thr Glu	Glu Glu Asp Phe His Val Asp Gln Val Thr Thr Val		
225	230	235	240
Lys Val Pro Met Met	Lys Arg Leu Gly Met Phe Asn Ile Gln His Cys		
245	250	255	
Lys Lys Leu Ser Ser	Trp Val Leu Leu Met Lys Tyr Leu Gly Asn Ala		
260	265	270	
Thr Ala Ile Phe	Phe Leu Pro Asp Glu Gly Lys Leu Gln His Leu Glu		
275	280	285	
Asn Glu Leu Thr His	Asp Ile Ile Thr Lys Phe Leu Glu Asn Glu Asp		
290	295	300	
Arg Arg Ser Ala Ser	Leu His Leu Pro Lys Leu Ser Ile Thr Gly Thr		
305	310	315	320
Tyr Asp Leu Lys Ser	Val Leu Gly Gln Leu Gly Ile Thr Lys Val Phe		
325	330	335	
Ser Asn Gly Ala Asp	Leu Ser Gly Val Thr Glu Glu Ala Pro Leu Lys		
340	345	350	
Leu Ser Lys Ala Val	His Lys Ala Val Leu Thr Ile Asp Glu Lys Gly		
355	360	365	
Thr Glu Ala Ala Gly	Ala Met Phe Leu Glu Ala Ile Pro Met Ser Ile		
370	375	380	
Pro Pro Glu Val Lys	Phe Asn Lys Pro Phe Val Phe Leu Met Ile Glu		
385	390	395	400
Gln Asn Thr Lys Ser	Pro Leu Phe Met Gly Lys Val Val Asn Pro Thr		
405	410	415	

Gln Lys

<210> 287

<211> 3928

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

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296

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<210> 288

<211> 293

<212> PRT

<213> Homo sapiens

<400> 288

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  20          25          30
Trp Asn Trp Ile Trp Arg Arg Cys Cys Arg Ala Ala Ser Ala Ala Val
  35          40          45
Leu Ala Pro Leu Gly Phe Thr Leu Arg Lys Pro Pro Ala Val Gly Arg
  50          55          60
Asn Arg Arg His His Arg His Pro Arg Gly Gly Ser Cys Leu Ala Ala
  65          70          75
Ala His His Arg Met Arg Trp Arg Ala Asp Gly Arg Ser Leu Glu Lys
  85          90          95
Leu Pro Val His Met Gly Leu Val Ile Thr Glu Val Glu Gln Glu Pro
 100         105         110
Ser Phe Ser Asp Ile Ala Ser Leu Val Val Trp Cys Met Ala Val Gly
 115         120         125
Ile Ser Tyr Ile Ser Val Tyr Asp His Gln Gly Ile Phe Lys Arg Asn
 130         135         140
Asn Ser Arg Leu Met Asp Glu Ile Leu Lys Gln Gln Gln Glu Leu Leu
 145         150         155
Gly Leu Asp Cys Ser Lys Tyr Ser Pro Glu Phe Ala Asn Ser Asn Asp
 165         170         175
Lys Asp Asp Gln Val Leu Asn Cys His Leu Ala Val Lys Val Leu Ser
 180         185         190
Pro Glu Asp Gly Lys Ala Asp Ile Val Arg Ala Ala Gln Asp Phe Cys
 195         200         205
Gln Leu Val Ala Gln Lys Gln Lys Arg Pro Thr Asp Leu Asp Val Asp
 210         215         220
Thr Leu Ala Ser Leu Leu Ser Ser Asn Gly Cys Pro Asp Pro Asp Leu
 225         230         235
Val Leu Lys Phe Gly Pro Val Asp Ser Thr Leu Gly Phe Leu Pro Trp
 245         250         255
His Ile Arg Leu Thr Glu Ile Val Ser Leu Pro Ser His Leu Asn Ile
 260         265         270
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 275         280         285
Gln Arg Leu Gly Lys
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<210> 289

<211> 936
 <212> DNA
 <213> Homo sapiens

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<210> 290
 <211> 243
 <212> PRT
 <213> Homo sapiens

<400> 290
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 20 25 30
 Asn Ser Ser Thr Ala Ile Gly Ile Arg Cys Lys Asp Gly Val Val Phe
 35 40 45
 Gly Val Glu Lys Leu Val Leu Ser Lys Leu Tyr Glu Glu Gly Ser Asn
 50 55 60
 Lys Arg Leu Phe Asn Val Asp Arg His Val Gly Met Ala Val Ala Gly
 65 70 75 80
 Leu Leu Ala Asp Ala Arg Ser Leu Ala Asp Ile Ala Arg Glu Glu Ala
 85 90 95
 Ser Asn Phe Arg Ser Asn Phe Gly Tyr Asn Ile Pro Leu Lys His Leu
 100 105 110
 Ala Asp Arg Val Ala Met Tyr Val His Ala Tyr Thr Leu Tyr Ser Ala
 115 120 125
 Val Arg Pro Phe Gly Cys Ser Val Asn Asp Gly Ala Gln Leu Tyr Met
 130 135 140
 Ile Asp Pro Ser Gly Val Ser Tyr Gly Tyr Trp Gly Cys Ala Ile Gly
 145 150 155 160
 Lys Ala Arg Gln Ala Ala Lys Thr Glu Ile Glu Lys Leu Gln Met Lys
 165 170 175
 Glu Met Thr Cys Arg Asp Ile Val Lys Glu Val Ala Lys Ile Ile Tyr
 180 185 190
 Ile Val His Asp Glu Val Lys Asp Lys Ala Phe Glu Leu Glu Leu Ser
 195 200 205
 Trp Val Gly Glu Leu Thr Asn Gly Arg His Glu Ile Val Pro Lys Asp
 210 215 220
 Ile Arg Glu Glu Ala Glu Lys Tyr Ala Lys Glu Ser Leu Lys Glu Glu
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Asp Glu Ser Asp Asp Asp Asn Met
245

<210> 291
<211> 2782
<212> DNA
<213> Homo sapiens

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299

<210> 292
 <211> 461
 <212> PRT
 <213> Homo sapiens

<400> 292

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           20           25           30
Met Arg Glu Thr Phe Arg Asn Leu Ala Ser Val Gly Lys Gln Trp Glu
 35           40           45
Asp Gln Asn Ile Glu Asp Pro Phe Lys Ile Pro Arg Arg Asn Ile Ser
 50           55           60
His Ile Pro Glu Arg Leu Cys Glu Ser Lys Glu Gly Gly Gln Gly Glu
 65           70           75           80
Glu Thr Phe Ser Gln Ile Pro Asp Gly Ile Leu Asn Lys Lys Thr Pro
           85           90           95
Gly Val Lys Pro Cys Glu Ser Ser Val Cys Gly Glu Val Gly Met Gly
 100          105          110
Pro Ser Ser Leu Asn Arg His Ile Arg Asp His Thr Gly Arg Glu Pro
 115          120          125
Asn Glu Tyr Gln Glu Tyr Gly Lys Lys Ser Tyr Thr Arg Asn Gln Cys
 130          135          140
Gly Arg Ala Leu Ser Tyr His Arg Ser Phe Pro Val Arg Glu Arg Thr
 145          150          155          160
His Pro Gly Gly Lys Pro Tyr Asp Cys Lys Glu Cys Gly Glu Thr Phe
           165          170          175
Ile Ser Leu Val Ser Ile Arg Arg His Met Leu Thr His Arg Gly Gly
 180          185          190
Val Pro Tyr Lys Cys Lys Val Cys Gly Lys Ala Phe Asp Tyr Pro Ser
 195          200          205
Leu Phe Arg Ile His Glu Arg Ser His Thr Gly Glu Lys Pro Tyr Glu
 210          215          220
Cys Lys Gln Cys Gly Lys Ala Phe Ser Cys Ser Ser Tyr Ile Arg Ile
 225          230          235          240
His Glu Arg Thr His Thr Gly Asp Lys Pro Tyr Glu Cys Lys Gln Cys
           245          250          255
Gly Lys Ala Phe Ser Cys Ser Lys Tyr Ile Arg Ile His Glu Arg Thr
 260          265          270
His Thr Gly Glu Lys Pro Tyr Glu Cys Lys Gln Cys Gly Lys Ala Phe
 275          280          285
Arg Cys Ala Ser Ser Val Arg Ser His Glu Arg Thr His Thr Gly Glu
 290          295          300
Lys Leu Phe Glu Cys Lys Glu Cys Gly Lys Ala Leu Thr Cys Leu Ala
 305          310          315          320
Ser Val Arg Arg His Met Ile Lys His Thr Gly Asn Gly Pro Tyr Lys
           325          330          335
Cys Lys Val Cys Gly Lys Ala Phe Asp Phe Pro Ser Ser Phe Arg Ile
 340          345          350
His Glu Arg Thr His Thr Gly Glu Lys Pro Tyr Asp Cys Lys Gln Cys
 355          360          365
Gly Lys Ala Phe Ser Cys Ser Ser Ser Phe Arg Lys His Glu Arg Ile
 370          375          380
His Thr Gly Glu Lys Pro Tyr Lys Cys Thr Lys Cys Gly Lys Ala Phe
 385          390          395          400
Ser Arg Ser Ser Tyr Phe Arg Ile His Glu Arg Thr His Thr Gly Glu
           405          410          415

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300

Lys Pro Tyr Glu Cys Lys Gln Cys Gly Lys Ala Phe Ser Arg Ser Thr
 420 425 430
 Tyr Phe Arg Val His Glu Lys Ile His Thr Gly Glu Lys Pro Tyr Glu
 435 440 445
 Asn Pro Asn Pro Asn Ala Ser Val Val Pro Val Leu Ser
 450 455 460

<210> 293

<211> 666

<212> DNA

<213> Homo sapiens

<400> 293

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 tgttcaggat tcttggcttc tggctagggt tccctgctat gcaatagtag ctgggagagg 180
 ccgaagaagt tctgggtggg ccacaccac tggtgaaaga ataatagtg aggtttggca 240
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 aaaaaa 666

<210> 294

<211> 58

<212> PRT

<213> Homo sapiens

<400> 294

Met Lys Ser Ser Gly Leu Phe Pro Phe Leu Val Leu Leu Ala Leu Gly
 1 5 10 15
 Thr Leu Ala Pro Trp Ala Val Glu Gly Ser Gly Lys Cys Lys Leu Glu
 20 25 30
 Ser Leu Trp Ser Asn Leu Gly Cys Arg Val Arg Gly Val Ser Leu
 35 40 45
 Trp Cys Gly Cys Val Pro Phe Cys Arg Leu
 50 55

<210> 295

<211> 594

<212> DNA

<213> Homo sapiens

<400> 295

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 ctgcccatac gaggaggctc tggagctctg ctctgtgtgg tccaggtcct ttccaccctg 480
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301

caagaagtgc cagttgatca atgaataaat aaacgagcct atttctcttt gcac 594

<210> 296

<211> 132

<212> PRT

<213> Homo sapiens

<400> 296

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 20 25 30
 Gly Val Cys Pro Pro Lys Lys Ser Ala Gln Cys Leu Arg Tyr Lys Lys
 35 40 45
 Pro Glu Cys Gln Ser Asp Trp Gln Cys Pro Gly Lys Lys Arg Cys Cys
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<212> DNA

<213> Homo sapiens

<400> 297

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<400> 298

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 1300 1305 1310
 Ala Gly Cys Ser Gln Asp Pro Glu Phe His Lys Val Cys Asp Glu Phe
 1315 1320 1325
 Gly Phe Gln Cys Gln Asn Gly Val Cys Ile Ser Leu Ile Trp Lys Cys
 1330 1335 1340
 Asp Gly Met Asp Asp Cys Gly Asp Tyr Ser Asp Glu Ala Asn Cys Glu
 1345 1350 1355 1360
 Asn Pro Thr Glu Ala Pro Asn Cys Ser Arg Tyr Phe Gln Phe Arg Cys
 1365 1370 1375
 Glu Asn Gly His Cys Ile Pro Asn Arg Trp Lys Cys Asp Arg Glu Asn
 1380 1385 1390
 Asp Cys Gly Asp Trp Ser Asp Glu Lys Asp Cys Gly Asp Ser His Ile
 1395 1400 1405
 Leu Pro Phe Ser Thr Pro Gly Pro Ser Thr Cys Leu Pro Asn Tyr Tyr
 1410 1415 1420
 Arg Cys Ser Ser Gly Thr Cys Val Met Asp Thr Trp Val Cys Asp Gly
 1425 1430 1435 1440
 Tyr Arg Asp Cys Ala Asp Gly Ser Asp Glu Glu Ala Cys Pro Leu Leu
 1445 1450 1455
 Ala Asn Val Thr Ala Ala Ser Thr Pro Thr Gln Leu Gly Arg Cys Asp
 1460 1465 1470
 Arg Phe Glu Phe Glu Cys His Gln Pro Lys Thr Cys Ile Pro Asn Trp
 1475 1480 1485
 Lys Arg Cys Asp Gly His Gln Asp Cys Gln Asp Gly Arg Asp Glu Ala
 1490 1495 1500
 Asn Cys Pro Thr His Ser Thr Leu Thr Cys Met Ser Arg Glu Phe Gln
 1505 1510 1515 1520
 Cys Glu Asp Gly Glu Ala Cys Ile Val Leu Ser Glu Arg Cys Asp Gly
 1525 1530 1535
 Phe Leu Asp Cys Ser Asp Glu Ser Asp Glu Lys Ala Cys Ser Asp Glu
 1540 1545 1550
 Leu Thr Val Tyr Lys Val Gln Asn Leu Gln Trp Thr Ala Asp Phe Ser
 1555 1560 1565
 Gly Asp Val Thr Leu Thr Trp Met Arg Pro Lys Lys Met Pro Ser Ala
 1570 1575 1580
 Ser Cys Val Tyr Asn Val Tyr Tyr Arg Val Val Gly Glu Ser Ile Trp
 1585 1590 1595 1600
 Lys Thr Leu Glu Thr His Ser Asn Lys Thr Asn Thr Val Leu Lys Val
 1605 1610 1615
 Leu Lys Pro Asp Thr Thr Tyr Gln Val Lys Val Gln Val Gln Cys Leu
 1620 1625 1630

Ser Lys Ala His Asn Thr Asn Asp Phe Val Thr Leu Arg Thr Pro Glu
 1635 1640 1643
 Gly Leu Pro Asp Ala Pro Arg Asn Leu Gln Leu Ser Leu Pro Arg Glu
 1650 1655 1660
 Ala Glu Gly Val Ile Val Gly His Trp Ala Pro Pro Ile His Thr His
 1665 1670 1675 1680
 Gly Leu Ile Arg Glu Tyr Ile Val Glu Tyr Ser Arg Ser Gly Ser Lys
 1685 1690 1695
 Met Trp Ala Ser Gln Arg Ala Ala Ser Asn Phe Thr Glu Ile Lys Asn
 1700 1705 1710
 Leu Leu Val Asn Thr Leu Tyr Thr Val Arg Val Ala Ala Val Thr Ser
 1715 1720 1725
 Arg Gly Ile Gly Asn Trp Ser Asp Ser Lys Ser Ile Thr Thr Ile Lys
 1730 1735 1740
 Gly Lys Val Ile Pro Pro Pro Asp Ile His Ile Asp Ser Tyr Gly Glu
 1745 1750 1755 1760
 Asn Tyr Leu Ser Phe Thr Leu Thr Met Glu Ser Asp Ile Lys Val Asn
 1765 1770 1775
 Gly Tyr Val Val Asn Leu Phe Trp Ala Phe Asp Thr His Lys Gln Glu
 1780 1785 1790
 Arg Arg Thr Leu Asn Phe Arg Gly Ser Ile Leu Ser His Lys Val Gly
 1795 1800 1805
 Asn Leu Thr Ala His Thr Ser Tyr Glu Ile Ser Ala Trp Ala Lys Thr
 1810 1815 1820
 Asp Leu Gly Asp Ser Pro Leu Ala Phe Glu His Val Met Thr Arg Gly
 1825 1830 1835 1840
 Val Arg Pro Pro Ala Pro Ser Leu Lys Ala Lys Ala Ile Asn Gln Thr
 1845 1850 1855
 Ala Val Glu Cys Thr Trp Thr Gly Pro Arg Asn Val Val Tyr Gly Ile
 1860 1865 1870
 Phe Tyr Ala Thr Ser Phe Leu Asp Leu Tyr Arg Asn Pro Lys Ser Leu
 1875 1880 1885
 Thr Thr Ser Leu His Asn Lys Thr Val Ile Val Ser Lys Asp Glu Gln
 1890 1895 1900
 Tyr Leu Phe Leu Val Arg Val Val Val Pro Tyr Gln Gly Pro Ser Ser
 1905 1910 1915 1920
 Asp Tyr Val Val Val Lys Met Ile Pro Asp Ser Arg Leu Pro Pro Arg
 1925 1930 1935
 His Leu His Val Val His Thr Gly Lys Thr Ser Val Val Ile Lys Trp
 1940 1945 1950
 Glu Ser Pro Tyr Asp Ser Pro Asp Gln Asp Leu Leu Tyr Ala Ile Ala
 1955 1960 1965
 Val Lys Asp Leu Ile Arg Lys Thr Asp Arg Ser Tyr Lys Val Lys Ser
 1970 1975 1980
 Arg Asn Ser Thr Val Glu Tyr Thr Leu Asn Lys Leu Glu Pro Gly Gly
 1985 1990 1995 2000
 Lys Tyr His Ile Ile Val Gln Leu Gly Asn Met Ser Lys Asp Ser Ser
 2005 2010 2015
 Ile Lys Ile Thr Thr Val Ser Leu Ser Ala Pro Asp Ala Leu Lys Ile
 2020 2025 2030
 Ile Thr Glu Asn Asp His Val Leu Leu Phe Trp Lys Ser Leu Ala Leu
 2035 2040 2045
 Lys Glu Lys His Phe Asn Glu Ser Arg Gly Tyr Glu Ile His Met Phe
 2050 2055 2060
 Asp Ser Ala Met Asn Ile Thr Ala Tyr Leu Gly Asn Thr Thr Asp Asn
 2065 2070 2075 2080
 Phe Phe Lys Ile Ser Asn Leu Lys Met Gly His Asn Tyr Thr Phe Thr
 2085 2090 2095

Val Gln Ala Arg Cys Leu Phe Gly Asn Gln Ile Cys Gly Glu Pro Ala
 2100 2105 2110
 Ile Leu Leu Tyr Asp Glu Leu Gly Ser Gly Ala Asp Ala Ser Ala Thr
 2115 2120 2125
 Gln Ala Ala Arg Ser Thr Asp Val Ala Ala Val Val Val Pro Ile Leu
 2130 2135 2140
 Phe Leu Ile Leu Leu Ser Leu Gly Val Gly Phe Ala Ile Leu Tyr Thr
 2145 2150 2155
 Lys His Arg Arg Leu Gln Ser Ser Phe Thr Ala Phe Ala Asn Ser His
 2165 2170 2175
 Tyr Ser Ser Arg Leu Gly Ser Ala Ile Phe Ser Ser Gly Asp Asp Leu
 2180 2185 2190
 Gly Glu Asp Asp Glu Asp Ala Pro Met Ile Thr Gly Phe Ser Asp Asp
 2195 2200 2205
 Val Pro Met Val Ile Ala
 2210

<210> 301
 <211> 1544
 <212> DNA
 <213> Homo sapiens

<220>
 <221> misc_feature
 <222> (1)...(1544)
 <223> n = A,T,C or G

<400> 301
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 cggcgagggc gcgagtgagg agcagaccca gccatcgccg gccagagaagg ccgggcgtcc 120
 ccacactgaa ggctccgaaaa ggcgacttcc gggggccttg gcacctggcg gaccctcccg 180
 gagcgctcgg acctgaacgc gagcgctccc attgcgcgtg cgcgttgagg ggcttccccc 240
 acctgatcgc gagaccocaa cggctgggtgg cgtcgccctgc cgtctctcgg tgagctggcc 300
 atggcgccagc tgtgcgggct gagcgggagc cgggcgcttc tcgccctgct gggatcgctg 360
 ctctctctctg ggttctctgg ggcgcaccca gaacgcagca tccacgactt ctgcctgggt 420
 tcgaaggtgg tgggcagatg ccgggcctcc atgcctaggt ggtggtacaa tgcactgac 480
 ggtactctgcc agctgtttgt gtatgggggc tgtgacggaa acagcaataa ttacctgacc 540
 aaggaggagt gctcaagaa atgtgccact gtcacagaga atgccacggg tgacctggcc 600
 accagcagga atgcagcga ttctctgtgc ccaagtgtct ccagaaagca ggtacttgaa 660
 gaccaatcca cgcgatgttt caactatgaa gaatactgca agcccaacgc agtcaactgg 720
 ctctgcgcgtg catctctccc acgctggtag ttgacgtgg agaggaactc ctgcaataac 780
 ttcatctatg gaggtgcgcg ggccaataag aacagctacc gctctgagga ggctgcatg 840
 ctccgctgct tccgccagca ggagaacctt cccctgcccc ttggctcaaa ggtggtgggt 900
 ctggcggggc gttlctgat ggtgttgatc ctcttctgg gagctccat ggtcactcg 960
 atccgggtgg caaggaggaa ccaggagcgt gccctgcgca ccgtctggag ctccggagat 1020
 gacaaggagc agctggtgaa gaacacatat gtctgtgac cgcctgtgag ccaaggaggc 1080
 taggggaagg aggggagact atgtgtgagc tttttttaa tagagggatt gactcgatt 1140
 tagtgtagca ttagggtctga ggtctgttct tctgggaggt aggaacggct ctctctggtc 1200
 tggcagggat ggggtlctgt tggaaatct ctaggagcgt cctcctcgag tggcctgcag 1260
 tctggcagca gccccagatt gtttctcgc tgatcgattt ctitctccca ggtagagttt 1320
 tctttcttta tgttgaattc cattgcctcc ttttctonat cacagaagt atgttgaat 1380
 cgtttctttt gtttctctga tttatggttt ttttaagtat aaacaaagt tttttattag 1440
 attctctgaa gaaggaaagt aaatgtaca agtttaataa aaaggggcct tccccttag 1500
 aataaatttc cagcatgttg ctttcaaaaa aaaaaaaaaa aaaa 1544

<210> 302
 <211> 252

<212> PRT

<213> Homo sapiens

<400> 302

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Met Ala Gln Leu Cys Gly Leu Arg Arg Ser Arg Ala Phe Leu Ala Leu
 1           5           10           15
Leu Gly Ser Leu Leu Ser Gly Val Leu Ala Ala Asp Arg Glu Arg
 20           25           30
Ser Ile His Asp Phe Cys Leu Val Ser Lys Val Val Gly Arg Cys Arg
 35           40           45
Ala Ser Met Pro Arg Trp Trp Tyr Asn Val Thr Asp Gly Ser Cys Gln
 50           55           60
Leu Phe Val Tyr Gly Gly Cys Asp Gly Asn Ser Asn Asn Tyr Leu Thr
 65           70           75           80
Lys Glu Glu Cys Leu Lys Lys Cys Ala Thr Val Thr Glu Asn Ala Thr
 85           90           95
Gly Asp Leu Ala Thr Ser Arg Asn Ala Ala Asp Ser Ser Val Pro Ser
100           105           110
Ala Pro Arg Arg Gln Asp Ser Glu Asp His Ser Ser Asp Met Phe Asn
115           120           125
Tyr Glu Glu Tyr Cys Thr Ala Asn Ala Val Thr Gly Pro Cys Arg Ala
130           135           140
Ser Phe Pro Arg Trp Tyr Phe Asp Val Glu Arg Asn Ser Cys Asn Asn
145           150           155           160
Phe Ile Tyr Gly Gly Cys Arg Gly Asn Lys Asn Ser Tyr Arg Ser Glu
165           170           175
Glu Ala Cys Met Leu Arg Cys Phe Arg Gln Gln Glu Asn Pro Pro Leu
180           185           190
Pro Leu Gly Ser Lys Val Val Val Leu Ala Gly Leu Phe Val Met Val
195           200           205
Leu Ile Leu Phe Leu Gly Ala Ser Met Val Tyr Leu Ile Arg Val Ala
210           215           220
Arg Arg Asn Gln Glu Arg Ala Leu Arg Thr Val Trp Ser Ser Gly Asp
225           230           235           240
Asp Lys Glu Gln Leu Val Lys Asn Thr Tyr Val Leu
245           250

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<210> 303

<211> 1558

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(1558)

<223> n = A,T,C or G

<400> 303

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gaacgcgcgtg agggccgcttg agtctgcgag cgcgcgaggg cgcgagtga gacgagaccc 120
aggcatcgcg cgcgcgagaag gccgggcgtc cccacactga aggtccggaa aggcgaattc 180
cgggggcttt ggcacctggc ggacccctcc ggagcgtcgg cactgaagg cgaggcgtc 240
cattgcgcgt cgcgcgttgag ggcgttccc cactgatcg cgagaccga acgctgggtg 300
gcgtgcgctg cgcgtctcgg ctgagctggc catggcgcag ctgtgcggcg tgaggcggag 360
cggggcgcttt ctgcacctgc tgggatcgct gctcctctct ggggtcctgg cgcgcgaccc 420
agaacgcgag atccacgaga atgccacggg tgacctggcc accagcagga atgcagcgga 480
ttcctctgtc ccaagtgtc ccagaaggca ggattctgaa gaccactcca gcgatattgt 540

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caactatgaa gaataactgca ccgccaacgc agtcaactggc ccttgccgtg cactcttccc 600
acgtcggtac tttagctggg agaggaactc ctgcaataac ttcatctatg gaggtgcgc 660
gggcaataag aacagctacc gctctgagga ggctgtgcac ctccgtgctc tcgccagca 720
ggagaatcct cccctgcccc ttggctcaaa ggtgtggtst ctggcggggg tgtttgtgat 780
ggtgttgatc ctcttctcgg gagctcccat ggtctacctg atccgggtgg caaggaggaa 840
ccaggagcgt gccctgcgca ccgtctggag ctccggagat gacaaggagc agctgggtga 900
gaacacatat gtctgtgac cgcctgtcgc ccaaggagac tggggagggg aggggagact 960
atgtgtgagc tttttttaa tagagggatt gactcggatt tgagtga ttagggctga 1020
atgtgtgttc tctggggagg aggaaggctg ctctcgtgct tggcagggat gggtttgtct 1080
tggaatcctc ctaggaggct cctcctcgca tggcctgcag tctggcagca gccccgagtt 1140
gtttcctcgt tgatcgattt ctttctccca ggtagagttt tctttgttta tgttgaaatt 1200
cattgctctt tttctcatca cagaagtgat gttggaatcg tttcttttgt ttgtctgatt 1260
tatggttttt ttaagtataa acaaaagttt tttattagca tttcgaaga aggaagataa 1320
aatgtacctn cgcgccnnnc gancrcctcg amcbttccch htaraawaaa wwwmarmawr 1380
tgctttcttt atgggagtc taatttcaac cctaccaaaa tgatcacaa acactatctg 1440
aggtgtccca ttctagaat agacccctca aaatagcgtc ttccagatct ttttgaatga 1500
atccacaaga tgaataaatt gtctatttac tgaaaaaaaa aaaaaaaagg gcggccgc 1558

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<210> 304

<211> 195

<212> PRT

<213> Homo sapiens

<220>

<221> VARIANT

<222> (1)...(195)

<223> Xaa = Any Amino Acid

<400> 304

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Met Ala Gln Leu Cys Gly Leu Arg Arg Ser Arg Ala Phe Leu Ala Leu
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Leu Gly Ser Leu Leu Ser Gly Val Leu Ala Ala Asp Arg Gly Arg
20 25 30
Ser Ile His Glu Asn Ala Thr Gly Asp Leu Ala Thr Ser Arg Asn Ala
35 40 45
Ala Asp Ser Ser Val Pro Ser Ala Pro Arg Arg Gln Asp Ser Glu Asp
50 55 60
His Ser Ser Asp Met Phe Asn Tyr Glu Glu Tyr Cys Thr Ala Asn Ala
65 70 75 80
Val Thr Gly Pro Cys Arg Ala Ser Phe Pro Arg Trp Tyr Phe Asp Val
85 90 95
Glu Arg Asn Ser Cys Asn Asn Phe Ile Tyr Gly Gly Cys Arg Gly Asn
100 105 110
Lys Asn Ser Tyr Arg Ser Glu Glu Ala Cys Met Leu Arg Cys Phe Arg
115 120 125
Gln Gln Glu Asn Pro Pro Leu Pro Leu Gly Ser Lys Val Val Xaa Leu
130 135 140
Ala Gly Leu Phe Val Met Val Leu Ile Leu Phe Leu Gly Ala Ser Met
145 150 155 160
Val Tyr Leu Ile Arg Val Ala Arg Arg Asn Gln Glu Arg Ala Leu Arg
165 170 175
Thr Val Trp Ser Ser Gly Asp Asp Lys Glu Gln Leu Val Lys Asn Thr
180 185 190
Tyr Val Leu
195

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<210> 305

<211> 3079

<212> DNA

<213> Homo sapiens

<400> 305

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ggccacaaagt      tggggggccgc      gaagatgagg      ctgtccocgg      cgcccctgaa      gctgagccgg      60
actccggcac      tgcctggccct      ggocgtgcccc      ctggccgcgg      cgctggccct      ctccgacagag      120
acctgggaca      aagtgcccaa      gtccagagggc      tactgtagcc      gtatccctgg      gcgccagggc      180
acggcgccgc      agggctacac      cgagttccgc      ctccggctgg      agggcgacc      cgactctcac      240
aagcggcgaa      ccagctcgga      cgttaacatt      tcagctgcct      ctccctctca      ctccagagga      300
ttcacattaa      ttgcctccag      agagaacaga      ggggtgata      aggaagaaga      ccattgctgg      360
accttcacga      tcatagacga      agaagaaact      cagtttatga      gcaattgccc      ttgtgcagtc      420
actgaaagca      ctccaccggag      gaggaccocg      atccaggtgt      ttggatagc      accaccagcg      480
ggaacaggct      gcgtgattct      gaaggccagc      atcgtacaaa      aacgcattat      ttattttcaa      540
gatgagggct      ctctgaccaa      gaaactttgt      gaacaagatt      ccacatttga      tggggtgact      600
gacaaaccca      tcltagacgt      ctgtgcctgc      ggaactgcca      agtacagact      cacattttat      660
gggaatttgt      ccgagaagac      acacccaaag      gattaccctc      gtccgggcaa      ccactggct      720
cgcalcaicg      gaggatccca      ctccaagaal      tatgtactgt      gggaatatgg      aggatatgcc      780
agcgaaggcg      tcaacaagct      tgcagaattg      ggctcaccgc      tgaaaatgga      ggaagaat      840
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cagcctctca      acgtgagagc      agcaccttca      gctgaatttt      ccgtggacag      aacgcgccat      960
ttaatgtcct      tctcgaccaa      gatggccctc      agtcccgact      ggaacgtagg      cttatctgca      1020
gaagatcgt      gacccaagg      atgtggctgg      gtccgaagg      ttgtgcaaga      cctgattccc      1080
tgggacgctg      gcaccgacag      cggggtgacc      tactgagtcac      ccaacaaacc      caccattccc      1140
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gagggtgggt      ccatcactca      agtagccaga      gtgtcactgc      agagaatcgc      acggaaaggt      1260
gaacaaatgca      ataltgtacc      tgacaaltgc      gatgalattg      tagctgacct      ggctccagaa      1320
gagaagaatg      aagatgcacac      cctgaaacc      tgcaactact      ccaactggct      cccatgtgtcc      1380
ccctgcagct      cctccacctg      tgacaaaggc      aaggagatgc      gacagcgcal      gctgaaagca      1440
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tgcaacatct      cctgcggcat      ggccatgagg      cctccggaga      ggtatgtgaa      cgagtcccg      1620
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gagtgtctct      ccagcagctg      cctgatgacc      agtggggcg      agtggagca      gtccagcgcc      1740
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tccattgtgca      aagccgagac      atcacagyc      gagaagtgca      tgatgccaga      gtgccacacc      1860
atccattgct      tgcctgcoccc      atggctcgag      tggagtgaat      gcagcgtgac      gtccgggaag      1920
ggcatgcgaa      ccgcacagcg      gatgtccaag      totctggccg      aacttggaag      ctgcatgag      1980
gatclggagc      aggtgggaa      gtgcattgtc      ccatgtactc      coactgtact      tgactcaccc      2040
gagtgttccc      agtgtgcgga      atgtaacaa      tcatgtggga      aaggccacgt      gatcgaaacc      2100
cggatgctcc      aaatggagcc      tcagtttgg      ggtgcaccct      ccagagagac      tgtcgacgca      2160
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gagcccgagc      agagccggcg      gagtgagcag      agtctgaagg      gcaocaaact      ggaagcagtc      2280
ccaggttgtta      ggaatgcgcc      atggacggcc      tggtcagaat      gcaocaaact      gtccggaggt      2340
ggaattccag      aaogttacat      gactgtaaa      aagagattca      aactgtatca      cttgttagca      2400
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ttcccaagg      ctgcactcta      gattccagag      tccccaatgg      ctggtattat      ccatgtgct      2520
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ccctcaoctc      cagccagcct      ctctctgcag      aggagttagt      aggccaccct      tgactaaagc      2700
tgaaacatgt      ccctctggag      ctccaccctg      ccaggaggag      acggagactt      tgacctactc      2760
cacatggaga      gccaaccatg      tctggaagt      actatgcctg      agtccaggg      tccgcaagct      2820
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tgaaacatt      gtttgcctcat      ctcttcttag      tggaaactta      ggtctctttc      caagtctctc      2940
cagtcatcaa      ttgtctctgg      ggaaaaacag      agctggtaga      cttgaaggag      agcatgtgat      3000
ttgggtggct      tttgtctctt      cactgagaaa      ttoggataac      atttgtctca      ccctgatat      3060
tggttctcga      tgccccagc      3079

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<210> 306
 <211> 807
 <212> PRT
 <213> Homo sapiens

<400> 306

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 20          25          30
Thr Leu Asp Lys Val Pro Lys Ser Glu Gly Tyr Cys Ser Arg Ile Leu
 35          40          45
Arg Ala Gln Gly Thr Arg Arg Glu Gly Tyr Thr Glu Phe Ser Leu Arg
 50          55          60
Val Glu Gly Asp Pro Asp Phe Tyr Lys Pro Gly Thr Ser Tyr Arg Val
 65          70          75
Thr Leu Ser Ala Ala Pro Pro Ser Tyr Phe Arg Gly Phe Thr Leu Ile
 85          90          95
Ala Leu Arg Glu Asn Arg Glu Gly Asp Lys Glu Glu Asp His Ala Gly
100          105          110
Thr Phe Gln Ile Ile Asp Glu Glu Glu Thr Gln Phe Met Ser Asn Cys
115          120          125
Pro Val Ala Val Thr Glu Ser Thr Pro Arg Arg Arg Thr Arg Ile Gln
130          135          140
Val Phe Trp Ile Ala Pro Pro Ala Gly Thr Gly Cys Val Ile Leu Lys
145          150          155
Ala Ser Ile Val Gln Lys Arg Ile Ile Tyr Phe Gln Asp Glu Gly Ser
165          170          175
Leu Thr Lys Lys Leu Cys Glu Gln Asp Ser Thr Phe Asp Gly Val Thr
180          185          190
Asp Lys Pro Ile Leu Asp Cys Cys Ala Cys Gly Thr Ala Lys Tyr Arg
195          200          205
Leu Thr Phe Tyr Gly Asn Trp Ser Glu Lys Thr His Pro Lys Asp Tyr
210          215          220
Pro Arg Arg Ala Asn His Trp Ser Ala Ile Ile Gly Gly Ser His Ser
225          230          235
Lys Asn Tyr Val Leu Trp Glu Tyr Gly Gly Tyr Ala Ser Glu Gly Val
245          250          255
Lys Gln Val Ala Glu Leu Gly Ser Pro Val Lys Met Glu Glu Glu Ile
260          265          270
Arg Gln Gln Ser Asp Glu Val Leu Thr Val Ile Lys Ala Lys Ala Gln
275          280          285
Trp Pro Ala Trp Gln Pro Leu Asn Val Arg Ala Ala Pro Ser Ala Glu
290          295          300
Phe Ser Val Asp Arg Thr Arg His Leu Met Ser Phe Leu Thr Met Met
305          310          315
Gly Pro Ser Pro Asp Trp Asn Val Gly Leu Ser Ala Glu Asp Leu Cys
325          330          335
Thr Lys Glu Cys Gly Trp Val Gln Lys Val Val Gln Asp Leu Ile Pro
340          345          350
Trp Asp Ala Gly Thr Asp Ser Gly Val Thr Tyr Glu Ser Pro Asn Lys
355          360          365
Pro Thr Ile Pro Gln Glu Lys Ile Arg Pro Leu Thr Ser Leu Asp His
370          375          380
Pro Gln Ser Pro Phe Tyr Asp Pro Glu Gly Gly Ser Ile Thr Gln Val
385          390          395
Ala Arg Val Val Ile Glu Arg Ile Ala Arg Lys Gly Glu Gln Cys Asn
405          410          415

```

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Ile Val Pro Asp Asn Val Asp Asp Ile Val Ala Asp Leu Ala Pro Glu
      420      425      430
Glu Lys Asp Glu Asp Asp Thr Pro Glu Thr Cys Ile Tyr Ser Asn Trp
      435      440      445
Ser Pro Trp Ser Ala Cys Ser Ser Ser Thr Cys Asp Lys Gly Lys Arg
      450      455      460
Met Arg Gln Arg Met Leu Lys Ala Gln Leu Asp Leu Ser Val Pro Cys
      465      470      475      480
Pro Asp Thr Gln Asp Phe Gln Pro Cys Met Gly Pro Gly Cys Ser Asp
      485      490      495
Glu Asp Gly Ser Thr Cys Thr Met Ser Glu Trp Ile Thr Trp Ser Pro
      500      505      510
Cys Ser Ile Ser Cys Gly Met Gly Met Arg Ser Arg Glu Arg Tyr Val
      515      520      525
Lys Gln Phe Pro Glu Asp Gly Ser Val Cys Thr Leu Pro Thr Glu Glu
      530      535      540
Met Glu Lys Cys Thr Val Asn Glu Glu Cys Ser Pro Ser Ser Cys Leu
      545      550      555      560
Met Thr Glu Trp Gly Glu Trp Asp Glu Cys Ser Ala Thr Cys Gly Met
      565      570      575
Gly Met Lys Lys Arg His Arg Met Ile Lys Met Asn Pro Ala Asp Gly
      580      585      590
Ser Met Cys Lys Ala Glu Thr Ser Gln Ala Glu Lys Cys Met Met Pro
      595      600      605
Glu Cys His Thr Ile Pro Cys Leu Leu Ser Pro Trp Ser Glu Trp Ser
      610      615      620
Asp Cys Ser Val Thr Cys Gly Lys Gly Met Arg Thr Arg Gln Arg Met
      625      630      635      640
Leu Lys Ser Leu Ala Glu Leu Gly Asp Cys Asn Glu Asp Leu Gln Gln
      645      650      655
Val Glu Lys Cys Met Leu Pro Glu Cys Pro Ile Asp Cys Glu Leu Thr
      660      665      670
Glu Trp Ser Gln Trp Ser Glu Cys Asn Lys Ser Cys Gly Lys Gly His
      675      680      685
Val Ile Arg Thr Arg Met Ile Gln Met Glu Pro Gln Phe Gly Gly Ala
      690      695      700
Pro Cys Pro Glu Thr Val Gln Arg Lys Lys Cys Arg Ile Arg Lys Cys
      705      710      715      720
Leu Arg Asn Pro Ser Ile Gln Lys Pro Arg Trp Arg Glu Ala Arg Glu
      725      730      735
Ser Arg Arg Ser Glu Gln Leu Lys Glu Glu Ser Glu Gly Glu Gln Phe
      740      745      750
Pro Gly Cys Arg Met Arg Pro Trp Thr Ala Trp Ser Glu Cys Thr Lys
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Leu Cys Gly Gly Gly Ile Gln Glu Arg Tyr Met Thr Val Lys Lys Arg
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<211> 835

<212> PRT

<213> Homo sapiens

<400> 310

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Arg Arg Gly Pro Pro Leu Leu Ala Leu Leu Ser Phe Ala Trp Leu Ser
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Ser Ala Gln Leu Ser Ala Ala Pro Arg Pro Pro Ser Arg Gly Gly His
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Gly Leu Arg Val Ala Asp Ala Ser Ser Glu Leu Pro Leu Ser Ala Ala
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Pro Pro Pro Gly Arg Ala Phe Val Gly Thr Thr Ser Gly Arg Ser Arg
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Val Ala Lys Ala Cys Gly Arg Gly Thr Lys Leu Gly Ala Ala Lys Met
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Arg Leu Ser Pro Ala Pro Leu Lys Leu Ser Arg Thr Pro Ala Leu Leu
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Leu Asp Lys Val Pro Lys Ser Glu Gly Tyr Cys Ser Arg Ile Leu Arg
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Glu Gly Asp Pro Asp Phe Tyr Lys Pro Gly Thr Ser Tyr Arg Val Thr
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Leu Ser Ala Ala Pro Pro Ser Tyr Phe Arg Gly Phe Thr Leu Ile Ala
210 215 220
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 Ser Ile Ser Cys Gly Met Gly Met Arg Ser Arg Glu Arg Tyr Val Lys
 645 650 655
 Gln Phe Pro Glu Asp Gly Ser Val Cys Thr Leu Pro Thr Glu Glu Thr
 660 665 670
 Glu Lys Cys Thr Val Asn Glu Glu Cys Ser Pro Ser Ser Cys Leu Met
 675 680 685
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 690 695 700

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 755 760 765
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 770 775 780
 Glu Lys Cys Met Leu Pro Glu Cys Pro Ile Asp Cys Glu Leu Thr Glu
 785 790 795 800
 Trp Ser Gln Trp Ser Glu Cys Asn Lys Ser Cys Gly Lys Gly His Val
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 Leu Glu Ser
 835

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 <213> Homo sapiens

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<210> 312

<211> 782

<212> PRT

<213> Homo sapiens

<400> 312

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  35          40          45
Lys His Gly Pro Gly Arg Trp Val Val Leu Ala Ala Val Leu Ile Gly
  50          55          60
Leu Leu Leu Val Leu Leu Gly Ile Gly Phe Leu Val Trp His Leu Gln
  65          70          75
Tyr Arg Asp Val Arg Val Gln Lys Val Phe Asn Gly Tyr Met Arg Ile
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Thr Asn Glu Asn Phe Val Asp Ala Tyr Glu Asn Ser Asn Ser Thr Glu
  100          105          110
Phe Val Ser Leu Ala Ser Lys Val Lys Asp Ala Leu Lys Leu Leu Tyr
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Ser Gly Val Pro Phe Leu Gly Pro Tyr His Lys Glu Ser Ala Val Thr
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Ala Phe Ser Glu Gly Ser Val Ile Ala Tyr Tyr Trp Ser Glu Phe Ser
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Ile Pro Gln His Leu Val Glu Glu Ala Glu Arg Val Met Ala Glu Glu
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Val Thr Ser Val Val Ala Phe Pro Thr Asp Ser Lys Thr Val Gln Arg
  195          200          205
Thr Gln Asp Asn Ser Cys Ser Phe Gly Leu His Ala Arg Gly Val Glu
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 Ala Leu Val Gln Leu Cys Gly Thr Tyr Pro Pro Ser Tyr Asn Leu Thr
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 Phe His Ser Ser Gln Asn Val Leu Leu Ile Thr Leu Ile Thr Asn Thr
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 Glu Arg Arg His Pro Gly Phe Glu Ala Thr Phe Phe Gln Leu Pro Arg
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 340 345 350
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 355 360 365
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 385 390 395 400
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 Phe Cys Lys Pro Leu Phe Trp Val Cys Asp Ser Val Asn Asp Cys Gly
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 485 490 495
 His Thr Tyr Arg Cys Leu Asn Gly Leu Cys Leu Ser Lys Gly Asn Pro
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 Cys Asp Cys Gly Leu Arg Ser Phe Thr Arg Gln Ala Arg Val Val Gly
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 Gly Thr Asp Ala Asp Glu Gly Glu Trp Pro Trp Gln Val Ser Leu His
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 565 570 575
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 Tyr Ser Asp Pro Thr Gln Trp Thr Ala Phe Leu Gly Leu His Asp Gln
 595 600 605
 Ser Gln Arg Ser Ala Pro Gly Val Gln Glu Arg Arg Leu Lys Arg Ile
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 625 630 635 640
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 645 650 655
 Ile Cys Leu Pro Asp Ala Ser His Val Phe Pro Ala Gly Lys Ala Ile
 660 665 670
 Trp Val Thr Gly Trp Gly His Thr Gln Tyr Gly Gly Thr Gly Ala Leu
 675 680 685
 Ile Leu Gln Lys Gly Glu Ile Arg Val Ile Asn Gln Thr Thr Cys Glu
 690 695 700
 Asn Leu Leu Pro Gln Gln Ile Thr Pro Arg Met Met Cys Val Gly Phe

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Ser	Ser	Val	Glu	Ala	Asp	Gly	Arg	Ile	Phe	Gln	Ala	Gly	Val	Val	Ser
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Trp	Gly	Asp	Gly	Cys	Ala	Gln	Arg	Asn	Lys	Pro	Gly	Val	Tyr	Thr	Arg
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 <212> DNA
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<211> 323

<212> PRT

<213> Homo sapiens

<400> 314

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Pro Gly Gly Arg Cys Gln Cys Arg Ala Leu Gly Ser Gly Met Ala Val
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Asp Cys Ser Thr Leu Thr Ser Lys Cys Leu Leu Lys Ala Arg Met
65 70 75 80
Ser Ala Pro Lys Asn Ala Arg Thr Leu Val Arg Pro Ser Glu His Ala
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Leu Val Asp Asn Asp Gly Leu Tyr Asp Pro Asp Cys Asp Pro Glu Gly
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Arg Phe Lys Ala Arg Gln Cys Asn Gln Thr Ser Val Cys Trp Cys Val
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Cys Asp Glu Leu Val Arg Thr His His Ile Leu Ile Asp Leu Arg His
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Arg Pro Thr Ala Gly Ala Phe Asn His Ser Asp Leu Asp Ala Glu Leu
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Arg Arg Leu Phe Arg Glu Arg Tyr Arg Leu His Pro Lys Phe Val Ala
180 185 190
Ala Val His Tyr Glu Gln Pro Thr Ile Gln Ile Glu Leu Arg Gln Asn
195 200 205
Thr Ser Gln Lys Ala Ala Gly Glu Val Asp Ile Gly Asp Ala Ala Tyr
210 215 220
Tyr Phe Glu Arg Asp Ile Lys Gly Glu Ser Leu Phe Gln Gly Arg Gly
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Pro Ser Leu

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<211> 1142
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 <213> Homo sapiens

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 Leu Tyr Gly Gly Cys Glu Gly Asn Ala Asn Asn Phe Tyr Thr Trp Glu
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 Ala Cys Asp Asp Ala Cys Trp Arg Ile Glu Lys Val Pro Lys Val Cys
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 Arg Leu Gln Val Ser Val Asp Asp Gln Cys Glu Gly Ser Thr Glu Lys
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 Tyr Phe Phe Asn Leu Ser Ser Met Thr Cys Glu Lys Phe Phe Ser Gly
 115 120 125
 Gly Cys His Arg Asn Arg Ile Glu Asn Arg Phe Pro Asp Glu Ala Thr
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 Cys Met Gly Phe Cys Ala Pro Lys Lys Ile Pro Ser Phe Cys Tyr Ser
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 Pro Lys Asp Glu Gly Leu Cys Ser Ala Asn Val Thr Arg Tyr Tyr Phe
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<212> PRT

<213> Homo sapiens

<400> 318

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<212> PRM

<213> Homo sapiens

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attcatagga  agtgtttaag  gtactatggt  ctatttttgt  ctaattcttg  ttttactatg  3420
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ttaaaaaaaa  aaaaaaaat  aaaa  3505

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<210> 322
<211> 466
<212> PRT
<213> Homo sapiens

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<400> 322
Met  Ile  Glu  Asp  Asn  Lys  Glu  Asn  Lys  Asp  His  Ser  Leu  Glu  Arg  Gly
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Arg  Ala  Ser  Leu  Ile  Phe  Ser  Leu  Lys  Asp  Glu  Val  Gly  Gly  Leu  Ile
          20          25          30
Lys  Ala  Leu  Lys  Ile  Phe  Gln  Glu  Lys  His  Val  Asn  Leu  Leu  His  Ile
          35          40          45
Glu  Ser  Arg  Lys  Ser  Lys  Arg  Arg  Asn  Ser  Glu  Phe  Glu  Ile  Phe  Val
          50          55          60
Asp  Cys  Asp  Ile  Asn  Arg  Glu  Gln  Leu  Asn  Asp  Ile  Phe  His  Leu  Leu
          65          70          75          80
Lys  Ser  His  Thr  Asn  Val  Leu  Ser  Val  Asn  Leu  Pro  Asp  Asn  Phe  Thr
          85          90          95
Leu  Lys  Glu  Asp  Gly  Met  Glu  Thr  Val  Pro  Trp  Phe  Pro  Lys  Lys  Ile
          100          105          110
Ser  Asp  Leu  Asp  His  Cys  Ala  Asn  Arg  Val  Leu  Met  Tyr  Gly  Ser  Glu
          115          120          125
Leu  Asp  Ala  Asp  His  Pro  Gly  Phe  Lys  Asp  Asn  Val  Tyr  Arg  Lys  Arg
          130          135          140
Arg  Lys  Tyr  Phe  Ala  Asp  Leu  Ala  Met  Asn  Tyr  Lys  His  Gly  Asp  Pro
          145          150          155          160
Ile  Pro  Lys  Val  Glu  Phe  Thr  Glu  Glu  Glu  Ile  Lys  Thr  Trp  Gly  Thr
          165          170          175
Val  Phe  Gln  Glu  Leu  Asn  Lys  Leu  Tyr  Pro  Thr  His  Ala  Cys  Arg  Glu
          180          185          190
Tyr  Leu  Lys  Asn  Leu  Pro  Leu  Leu  Ser  Lys  Tyr  Cys  Gly  Tyr  Arg  Glu
          195          200          205
Asp  Asn  Ile  Pro  Gln  Leu  Glu  Asp  Val  Ser  Asn  Phe  Leu  Lys  Glu  Arg

```

334

210 215 220
 Thr Gly Phe Ser Ile Arg Pro Val Ala Gly Tyr Leu Ser Pro Arg Asp
 225 230 235
 Phe Leu Ser Gly Leu Ala Phe Arg Val Phe His Cys Thr Gln Tyr Val
 245 250 255
 Arg His Ser Ser Asp Pro Phe Tyr Thr Pro Glu Pro Asp Thr Cys His
 260 265 270
 Glu Leu Leu Gly His Val, Pro Leu Leu Ala Glu Pro Ser Phe Ala Gln
 275 280 285
 Phe Ser Gln Glu Ile Gly Leu Ala Ser Leu Gly Ala Ser Glu Glu Ala
 290 295 300
 Val Gln Lys Leu Ala Thr Cys Tyr Phe Phe Thr Val Glu Phe Gly Leu
 305 310 315 320
 Cys Lys Gln Asp Gly Gln Leu Arg Val Phe Gly Ala Gly Leu Leu Ser
 325 330 335
 Ser Ile Ser Glu Leu Lys His Ala Leu Ser Gly His Ala Lys Val Lys
 340 345 350
 Pro Phe Asp Pro Lys Ile Thr Cys Lys Gln Glu Cys Leu Ile Thr Thr
 355 360 365
 Phe Gln Asp Val Tyr Phe Val Ser Glu Ser Phe Glu Asp Ala Lys Glu
 370 375 380
 Lys Met Arg Glu Phe Thr Lys Thr Ile Lys Arg Pro Phe Gly Val Lys
 385 390 395 400
 Tyr Asn Pro Tyr Thr Arg Ser Ile Gln Ile Leu Lys Asp Thr Lys Ser
 405 410 415
 Ile Thr Ser Ala Met Asn Glu Leu Gln His Asp Leu Asp Val Val Ser
 420 425 430
 Asp Ala Leu Ala Lys Ser Leu Asn Glu Asp Val Leu Gln Val Ser Val
 435 440 445
 Phe Ala Leu Leu Phe Leu Pro Ser Leu His Gly Glu Cys His Pro.
 450 455 460
 Asp Thr
 465

<210> 323

<211> 1154

<212> DNA

<213> Homo sapiens

<400> 323

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 accatgcagt gcttcagctt cattaagacc atgatgatcc tcttcaattt gctcatcttt 180
 ctgtgtggtg cagccctggtt ggcagtgggc atctgggtgt caatcgatgg ggcactcttt 240
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 gaggttgcag ctgctgtggt cgccttgggt tacaccacaa tggctgagca ctctctgacg 480
 ttgctgttag tgccctgccat caagaaaagt tatgtttccc aggaagaact cactcaagtg 540
 tggaaacacca ccatgaaagg gctcaagtgc tgtgtgttca ccaactatac ggattttgag 600
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 accaacacag ccaatgaaac ctgcaccaag caaaaggctc acgaccacaa agtagagggt 720
 tgcttcaact agcttttgta tgacatccga actaatgcag tcaccgtggg tgggtgtggca 780
 gctggaattg ggggcctcga gttcttttcc aactcagctc gaaggccacc tcttcacgaa 840
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 ctcttcaggc tcttagagcc tctgctgtct cgtcttcatc ctggaagtat cacactctc 960
 caccacactg aaccctcaa ggtagggcca ggtctgatta ctttcaggtc cccagtgcct 1020

335

agcacaaggc tgaggccaaa aaaaggacca ggggatgggt ataaaaataa tcaatgaatt 1080
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 aaaaaaaaaa aagt 1154

<210> 324

<211> 258

<212> PRT

<213> Homo sapiens

<400> 324

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 20 25 30
 Ser Ile Asp Gly Ala Ser Phe Leu Lys Ile Phe Gly Pro Leu Ser Ser
 35 40 45
 Ser Ala Met Gln Phe Val Asn Val Gly Tyr Phe Leu Ile Ala Ala Gly
 50 55 60
 Val Val Val Phe Ala Leu Gly Phe Leu Gly Cys Tyr Gly Ala Lys Thr
 65 70 75 80
 Glu Ser Lys Cys Ala Leu Val Thr Phe Phe Phe Ile Leu Leu Leu Ile
 85 90 95
 Phe Ile Ala Glu Val Ala Ala Val Val Ala Leu Val Tyr Thr Thr
 100 105 110
 Met Ala Glu His Phe Leu Thr Leu Leu Val Val Pro Ala Ile Lys Lys
 115 120 125
 Asp Tyr Gly Ser Gln Glu Asp Phe Thr Gln Val Trp Asn Thr Thr Met
 130 135 140
 Lys Gly Leu Lys Cys Cys Gly Phe Thr Asn Tyr Thr Asp Phe Glu Asp
 145 150 155 160
 Ser Pro Tyr Phe Lys Glu Asn Ser Ala Phe Pro Pro Phe Cys Cys Asn
 165 170 175
 Asp Asn Val Thr Asn Thr Ala Asn Glu Thr Cys Thr Lys Gln Lys Ala
 180 185 190
 His Asp Gln Lys Val Glu Gly Cys Phe Asn Gln Leu Leu Tyr Asp Ile
 195 200 205
 Arg Thr Asn Ala Val Thr Val Gly Gly Val Ala Ala Gly Ile Gly Gly
 210 215 220
 Leu Glu Phe Phe Ser Asn Ser Ala Arg Arg Pro Pro Leu Pro Glu Ser
 225 230 235 240
 Leu Tyr Ser Thr Pro Ile Arg Arg Asp His Val Phe Leu Gln Pro Ser
 245 250 255
 Pro Pro

<210> 325

<211> 1076

<212> DNA

<213> Homo sapiens

<400> 325

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 aagatcttct ggccactgtc gtccagtgtc atgcagtttg tcaactgtgg ctacttctc 180
 atcgacgcgc cgtgtgtggt cttgtctctt ggtttcctgg gctgctatgg tgctaaact 240
 gagagcaagt gtgccctcgt gcgtttcttc ttcatcctcc tctcatctct ccttgcctgag 300
 gttgcagctg ctgtgggtgc cttgtgtgac accacaatgg ctgagcactt cctgcagctg 360

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ctggttagtgc ctgccatcaa gaaagattat ggttcccagg aagacttcac tcaagtgtgg 420
aacacccacca tgaaggaggct caagtgcctgt ggcttccacca actatacggg ttttgaggac 480
tcaccctact tcctaaagagaa cagtgccctt cccccattct gttgcaatga caacgtacc 540
aacacagcaca atgaaccctg caccgagcaa aaggctcacg accaaaaagt agagggttgc 600
ttcaatcagc ttttgatga catccgaact aatgcagtca ccgtgggtgg tgtggcagct 660
ggaattgggg gccctcagct ggctgccatg attgtgtcca tgtatctgta ctgcaatcta 720
caataagtcct actctgcct ctgccactac tgcctgccaca tgggaactgt gaagaggcac 780
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<210> 326

<211> 241

<212> PRT

<213> Homo sapiens

<400> 326

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Met Gln Cys Phe Ser Phe Ile Lys Thr Met Met Ile Leu Phe Asn Leu
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20 25 30
Ser Ile Asp Gly Ala Ser Phe Leu Lys Ile Phe Gly Pro Leu Ser Ser
35 40 45
Ser Ala Met Gln Phe Val Asn Val Gly Tyr Phe Leu Ile Ala Ala Gly
50 55 60
Val Val Val Phe Ala Leu Gly Phe Leu Gly Cys Tyr Gly Ala Lys Thr
65 70 75 80
Glu Ser Lys Cys Ala Leu Val Thr Phe Phe Phe Ile Leu Leu Leu Ile
85 90 95
Phe Ile Ala Glu Val Ala Ala Ala Val Val Ala Leu Val Tyr Thr Thr
100 105 110
Met Ala Glu His Phe Leu Thr Leu Leu Val Val Pro Ala Ile Lys Lys
115 120 125
Asp Tyr Gly Ser Gln Glu Asp Phe Thr Gln Val Trp Asn Thr Thr Met
130 135 140
Lys Gly Leu Lys Cys Cys Gly Phe Thr Asn Tyr Thr Asp Phe Glu Asp
145 150 155 160
Ser Pro Tyr Phe Lys Glu Asn Ser Ala Phe Pro Pro Phe Cys Cys Asn
165 170 175
Asp Asn Val Thr Asn Thr Ala Asn Glu Thr Cys Thr Glu Gln Lys Ala
180 185 190
His Asp Gln Lys Val Glu Gly Cys Phe Asn Gln Leu Leu Tyr Asp Ile
195 200 205
Arg Thr Asn Ala Val Thr Val Gly Gly Val Ala Ala Gly Ile Gly Gly
210 215 220
Leu Glu Leu Ala Ala Met Ile Val Ser Met Tyr Leu Tyr Cys Asn Leu
225 230 235 240
Gln

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<210> 327

<211> 2244

<212> DNA

<213> Homo sapiens

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<400> 327
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ttctcaggat ctoacaagg aagagcagac caaggttgct ttctgattcc tacaaaccttc 180
cgtaattcca ggcttggcgc cccaatatca gggcccccacc cttccaggaa caaatcatcta 240
tagtaataat ttgccttcat cttccatata ccaactaagc atgtttaaact acgaaacctcc 300
aaaaacactc attccagtc cc aaacccatg ttggtccaga ttgcagctcc ctggaccaga 360
aactccacgg ttctcttagc agacaaaaca gtcttccatt atcatccagc ccgcgcagtg 420
tagcaggaga aagattttctg cctcctcaac aotgagctct cactatcaaca ttgctctctc 480
ttgtttccct gcttctcccc agcagcatgc ttgctccaac ccaggcccaa ggcgcagctg 540
cacctataac cagtcgccag ccagcttctct cagctccata ttaccatcac agcctgattta 600
caatagcagt aaaaaccctt ccgctatgga ttccaaactat caacagtcct cagctggcca 660
aactataaat gcaaggccat cccaaactgc aatgtctaag cccataccaa gaactcctga 720
tcattgaata caaggatcaa aagaagcttt gattcaagat ttggaaagaa agctgaaattg 780
caaggacacc cttctcata atggaaatca acgtctaaca tatgaagaga agatggctcg 840
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acagactctg cagcaacaca actcagaaca tgcgcgactg caagtctcta catcacaaat 960
aagaagtaga tcaaacctcaa ggggagatgt gaatgatcag gatgcaatcc aggagaaatt 1020
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cagaatggac ttcaaatgta gtggactgcc agctcctgat gtgtcatggt atctaaattcg 1140
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agctcaatgc ggactctatg aaagtgaaga actttaataa ctttaccacac attggaaaac 1800
agcacaatgc accattagta atattattga ttacattttt ttgaaattaa tccatagctg 1860
tattacaaga ttatggtttt aattaggtaa tatagttaat atatatattt aatattattt 1920
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gggtatatgg atttgaact gcgaagact atcttaaaat acaggatttt aacatttaag 2040
tcattgcaatc ttaacaatta caggtataaa atttagtatca acttttttaa caactctaat 2100
gcttgtaata acgtttactg gtactgcttt ctaaatactg ttttaccctg ttctctgt 2160
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aaaaattcaaa tattttaaac ggac 2244

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<210> 328
<211> 498
<212> PRT
<213> Homo sapiens

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<400> 328
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1 5 10 15
Cys Gly Ser Arg Leu Gln Pro Pro Gly Pro Glu Thr Ser Ser Phe Ser
20 25 30
Ser Gln Thr Lys Gln Ser Ser Ile Ile Ile Gln Pro Arg Gln Cys Thr
35 40 45
Glu Gln Arg Phe Ser Ala Ser Ser Thr Leu Ser Ser His Ile Thr Met
50 55 60
Ser Ser Ser Ala Phe Pro Ala Ser Pro Gln Gln His Ala Gly Ser Asn
65 70 75 80
Pro Gly Gln Arg Val Thr Thr Thr Tyr Asn Gln Ser Pro Ala Ser Phe
85 90 95

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Leu Ser Ser Ile Leu Pro Ser Gln Pro Asp Tyr Asn Ser Ser Lys Ile
 100 105 110
 Pro Ser Ala Met Asp Ser Asn Tyr Gln Gln Ser Ser Ala Gly Gln Pro
 115 120 125
 Ile Asn Ala Lys Pro Ser Gln Thr Ala Asn Ala Lys Pro Ile Pro Arg
 130 135 140
 Thr Pro Asp His Glu Ile Gln Gly Ser Lys Glu Ala Leu Ile Gln Asp
 145 150 155 160
 Leu Glu Arg Lys Leu Lys Cys Lys Asp Thr Leu Leu His Asn Gly Asn
 165 170 175
 Gln Arg Leu Thr Tyr Glu Glu Lys Met Ala Arg Arg Leu Leu Gly Pro
 180 185 190
 Gln Asn Ala Ala Ala Val Phe Gln Ala Gln Asp Asp Ser Gly Ala Gln
 195 200 205
 Asp Ser Gln Gln His Asn Ser Glu His Ala Arg Leu Gln Val Pro Thr
 210 215 220
 Ser Gln Val Arg Ser Arg Ser Thr Ser Arg Gly Asp Val Asn Asp Gln
 225 230 235 240
 Asp Ala Ile Gln Glu Lys Phe Tyr Pro Pro Arg Phe Ile Gln Val Pro
 245 250 255
 Glu Asn Met Ser Ile Asp Glu Gly Arg Phe Cys Arg Met Asp Phe Lys
 260 265 270
 Val Ser Gly Leu Pro Ala Pro Asp Val Ser Trp Tyr Leu Asn Gly Arg
 275 280 285
 Thr Val Gln Ser Asp Asp Leu His Lys Met Ile Val Ser Glu Lys Gly
 290 295 300
 Leu His Ser Leu Ile Phe Glu Val Val Arg Ala Ser Asp Ala Gly Ala
 305 310 315 320
 Tyr Ala Cys Val Ala Lys Asn Arg Ala Gly Glu Ala Thr Phe Thr Val
 325 330 335
 Gln Leu Asp Val Leu Ala Lys Glu His Lys Arg Ala Pro Met Phe Ile
 340 345 350
 Tyr Lys Pro Gln Ser Lys Lys Val Leu Glu Gly Asp Ser Val Lys Leu
 355 360 365
 Glu Cys Gln Ile Ser Ala Ile Pro Pro Pro Lys Leu Phe Trp Lys Arg
 370 375 380
 Asn Asn Glu Met Val Gln Phe Asn Thr Asp Arg Ile Ser Leu Tyr Gln
 385 390 395 400
 Asp Asn Thr Gly Arg Val Thr Leu Leu Ile Lys Asp Val Asn Lys Lys
 405 410 415
 Asp Ala Gly Trp Tyr Thr Val Ser Ala Val Asn Glu Ala Gly Val Thr
 420 425 430
 Thr Cys Asn Thr Arg Leu Asp Val Thr Ala Arg Pro Asn Gln Thr Leu
 435 440 445
 Pro Ala Pro Lys Gln Leu Arg Val Arg Pro Thr Phe Ser Lys Tyr Leu
 450 455 460
 Ala Leu Asn Gly Lys Gly Leu Asn Val Lys Gln Ala Phe Asn Pro Glu
 465 470 475 480
 Gly Glu Phe Gln Arg Leu Ala Ala Gln Ser Gly Leu Tyr Glu Ser Glu
 485 490 495
 Glu Leu

<210> 329

<211> 3649

<212> DNA

<213> Homo sapiens

<400> 329

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tcaccagcag	acgcctcgga	attcctgctc	tggttgctgg	atcggtgaca	tgaggacctg	180
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gatgaggtag	ttttggttga	actgtatccc	agtggattcc	agcgtctttt	ctttgatgaa	600
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gccctgagg	gccagcgatt	ctccctctct	ctccacaggt	agagcaaggt	gctaactctc	780
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ctaaaggagt	ttggatgtgg	gcaaaaacag	tgaagctggt	taataaagaa	tcttcaatgt	3300
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340

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taaagaaaaa tatttttatt ttaatgcttt tctgggataa gcattaaaga tgccaaaaag 3420
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<210> 330

<211> 812

<212> PRT

<213> Homo sapiens

<400> 330

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20     25     30
Leu Asn Thr Ile Ala Glu Gly Asp Asn Val Tyr Ala Phe Gln Val Pro
35     40     45
Pro Ser Pro Ser Gln Gly Thr Leu Ser Ala His Pro Leu Gly Leu Ser
50     55     60
Ala Ser Pro Arg Leu Ala Ala Arg Glu Gly Gln Arg Phe Ser Leu Ser
65     70     75     80
Leu His Ser Glu Ser Lys Val Leu Ile Leu Phe Cys Asn Leu Val Gly
85     90     95
Ser Gly Gln Gln Ala Ser Arg Phe Gly Pro Pro Phe Leu Ile Arg Glu
100    105    110
Asp Arg Ala Val Ser Trp Ala Gln Leu Gln Gln Ser Ile Leu Ser Lys
115    120    125
Val Arg His Leu Met Lys Ser Glu Ala Pro Val Gln Asn Leu Gly Ser
130    135    140
Leu Phe Ser Ile Arg Val Val Gly Leu Ser Val Ala Cys Ser Tyr Leu
145    150    155    160
Ser Pro Lys Asp Ser Arg Pro Leu Cys His Trp Ala Val Asp Arg Val
165    170    175
Leu His Leu Arg Arg Pro Gly Gly Pro Pro His Val Lys Leu Ala Val
180    185    190
Glu Trp Asp Ser Ser Val Lys Glu Arg Leu Phe Gly Ser Leu Gln Glu
195    200    205
Glu Arg Ala Gln Asp Ala Asp Ser Val Trp Gln Gln Gln Gln Ala His
210    215    220
Gln Gln His Ser Cys Thr Leu Asp Glu Cys Phe Gln Phe Tyr Thr Lys
225    230    235    240
Glu Glu Gln Leu Ala Gln Asp Asp Ala Trp Lys Cys Pro His Cys Gln
245    250    255
Val Leu Gln Gln Gly Met Val Lys Leu Ser Leu Trp Thr Leu Pro Asp
260    265    270
Ile Leu Ile Ile His Leu Lys Arg Phe Cys Gln Val Gly Glu Arg Arg
275    280    285
Asn Lys Leu Ser Thr Leu Val Lys Phe Pro Leu Ser Gly Leu Asn Met
290    295    300
Ala Pro His Val Ala Gln Arg Ser Thr Ser Pro Glu Ala Gly Leu Gly
305    310    315    320
Pro Trp Pro Ser Trp Lys Gln Pro Asp Cys Leu Pro Thr Ser Tyr Pro
325    330    335
Leu Asp Phe Leu Tyr Asp Leu Tyr Ala Val Cys Asn His His Gly Asn
340    345    350
Leu Gln Gly Gly His Tyr Thr Ala Tyr Cys Arg Asn Ser Leu Asp Gly
355    360    365

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Gln Trp Tyr Ser Tyr Asp Asp Ser Thr Val Glu Pro Leu Arg Glu Asp
 370 375 380
 Glu Val Asn Thr Arg Gly Ala Tyr Ile Leu Phe Tyr Gln Lys Arg Asn
 385 390 395 400
 Ser Ile Pro Pro Trp Ser Ala Ser Ser Ser Met Arg Gly Ser Thr Ser
 405 410 415
 Ser Ser Leu Ser Asp His Trp Leu Leu Arg Leu Gly Ser His Ala Gly
 420 425 430
 Ser Thr Arg Gly Ser Leu Leu Ser Trp Ser Ser Ala Pro Cys Pro Ser
 435 440 445
 Leu Pro Gln Val Pro Asp Ser Pro Ile Phe Thr Asn Ser Leu Cys Asn
 450 455 460
 Gln Glu Lys Gly Gly Leu Glu Pro Arg Arg Leu Val Arg Gly Val Lys
 465 470 475 480
 Gly Arg Ser Ile Ser Met Lys Ala Pro Thr Thr Ser Arg Ala Lys Gln
 485 490 495
 Gly Pro Phe Lys Thr Met Pro Leu Arg Trp Ser Phe Gly Ser Lys Glu
 500 505 510
 Lys Pro Pro Gly Ala Ser Val Glu Leu Val Glu Tyr Leu Glu Ser Arg
 515 520 525
 Arg Arg Pro Arg Ser Thr Ser Gln Ser Ile Val Ser Leu Leu Thr Gly
 530 535 540
 Thr Ala Gly Glu Asp Glu Lys Ser Ala Ser Pro Arg Ser Asn Val Ala
 545 550 555 560
 Leu Pro Ala Asn Ser Glu Asp Gly Gly Arg Ala Ile Glu Arg Gly Pro
 565 570 575
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 580 585 590
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 595 600 605
 Gly Gln Asp Ile Lys Leu Pro Arg Lys Phe Asp Leu Pro Leu Thr Val
 610 615 620
 Met Pro Ser Val Glu His Glu Lys Pro Ala Arg Pro Glu Gly Gln Lys
 625 630 635 640
 Ala Met Asn Trp Lys Glu Ser Phe Gln Met Gly Ser Lys Ser Ser Pro
 645 650 655
 Pro Ser Pro Tyr Met Gly Phe Ser Gly Asn Ser Lys Asp Ser Arg Arg
 660 665 670
 Gly Thr Ser Glu Leu Asp Arg Pro Leu Gln Gly Thr Leu Thr Leu
 675 680 685
 Arg Ser Val Phe Arg Lys Lys Glu Asn Arg Arg Asn Glu Arg Ala Glu
 690 695 700
 Val Ser Pro Gln Val Pro Pro Val Ser Leu Val Ser Gly Gly Leu Ser
 705 710 715 720
 Pro Ala Met Asp Gly Gln Ala Pro Gly Ser Pro Pro Ala Leu Arg Ile
 725 730 735
 Pro Glu Gly Leu Ala Arg Gly Leu Gly Ser Arg Leu Glu Arg Asp Val
 740 745 750
 Trp Ser Ala Pro Ser Ser Leu Arg Leu Pro Arg Lys Ala Ser Arg Ala
 755 760 765
 Pro Arg Gly Ser Ala Leu Gly Met Ser Gln Arg Thr Val Pro Gly Glu
 770 775 780
 Gln Ala Ser Tyr Gly Thr Phe Gln Arg Val Lys Tyr His Thr Leu Ser
 785 790 795 800
 Leu Gly Arg Lys Lys Thr Leu Pro Glu Ser Ser Phe
 805 810

342

<210> 331
<211> 1811
<212> DNA
<213> Homo sapiens

<400> 331
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cacagtcaact actgtcguct cagctgggaa cattggggag gatggaatcc agagctgcac 240
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aggcttggtc catgagttca aagaaggcaa agatgagctg tcggagcagg atgaaatgtt 360
cagaggcccg acagcagtgt ttgctgatca agtgatagtt ggcaatgcct ctttcgggct 420
gaaaaacgtg caactccacag atgctggcac ctacaaatgt tatatcatca ctttcaaaag 480
caaggggaat gctaaccttg agtataaac tggagccttc agcatgcggg aagtgaatgt 540
ggactataat gccagctcag agaccttgcc gtgtgaggct ccccgatggt tccccagcc 600
cacgttggtc tgggcatccc aagttgacca gggagccaac ttctcggaag tctccaatcc 660
cagctttgag ctgaactctg agaattgtac catgaagggt gtgtctgtgc tctacaatgt 720
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aaaaaaaaa a 1811

<210> 332
<211> 282
<212> PRT
<213> Homo sapiens

<400> 332
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20 25 30
Gly Arg His Ser Ile Thr Val Thr Thr Val Ala Ser Ala Gly Asn Ile
35 40 45
Gly Glu Asp Gly Ile Gln Ser Cys Thr Phe Glu Pro Asp Ile Lys Leu
50 55 60
Ser Asp Ile Val Ile Gln Trp Leu Lys Glu Gly Val Leu Gly Leu Val
65 70 75 80
His Glu Phe Lys Glu Gly Lys Asp Glu Leu Ser Glu Gln Asp Glu Met
85 90 95
Phe Arg Gly Arg Thr Ala Val Phe Ala Asp Gln Val Ile Val Gly Asn
100 105 110

Ala Ser Leu Arg Leu Lys Asn Val Gln Leu Thr Asp Ala Gly Thr Tyr
 115 120 125
 Lys Cys Tyr Ile Ile Thr Ser Lys Gly Lys Gly Asn Ala Asn Leu Glu
 130 135 140
 Tyr Lys Thr Gly Ala Phe Ser Met Pro Glu Val Asn Val Asp Tyr Asn
 145 150 155 160
 Ala Ser Ser Glu Thr Leu Arg Cys Glu Ala Pro Arg Trp Phe Pro Gln
 165 170 175
 Pro Thr Val Val Trp Ala Ser Gln Val Asp Gln Gly Ala Asn Phe Ser
 180 185 190
 Glu Val Ser Asn Thr Ser Phe Glu Leu Asn Ser Glu Asn Val Thr Met
 195 200 205
 Lys Val Val Ser Val Leu Tyr Asn Val Thr Ile Asn Asn Thr Tyr Ser
 210 215 220
 Cys Met Ile Glu Asn Asp Ile Ala Lys Ala Thr Gly Asp Ile Lys Val
 225 230 235 240
 Thr Glu Ser Glu Ile Lys Arg Arg Ser His Leu Gln Leu Leu Asn Ser
 245 250 255
 Lys Ala Ser Leu Cys Val Ser Ser Phe Phe Ala Ile Ser Trp Ala Leu
 260 265 270
 Leu Pro Leu Ser Pro Tyr Leu Met Leu Lys
 275 280

<210> 333

<211> 1984

<212> DNA

<213> Homo sapiens

<400> 333

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 gctctgaaaa tgggagatct tgacatgcac agaaatgaaa tgaaaagcca ttccagagtg 240
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 aaggtgcttt gtgctaaagg tgaagatata attcctcagc tcttggtaga cttttgggaa 480
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344

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tgtttttgag aaagatgtta atgttttgcc atggtaaaag atttcaaac tcattttttt 1740
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tgtttttttc agccaaagcc ttgtttccat ttttgttgat gtgtactctt gctcttttag 1920
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<210> 334

<211> 258

<212> PRT

<213> Homo sapiens

<400> 334

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Met Phe Tyr Val Ala Glu Pro Lys Gln Val Pro His Ile Leu Cys Ser
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Lys Leu Asp Thr Ser Gly Phe Ser Ser Ile Leu Val Thr Leu Thr Lys
35 40 45
Ala Ala Val Ala Leu Lys Met Gly Asp Leu Asp Met His Arg Asn Glu
50 55 60
Met Lys Ser His Ser Glu Met Lys Leu Val Cys Gly Phe Ile Leu Glu
65 70 75 80
Pro Arg Leu Leu Ile Gln Gln Arg Lys Gly Gln Ile Val Pro Thr Glu
85 90 95
Leu Ala Leu His Leu Lys Glu Thr Gln Pro Gly Leu Leu Val Ala Ser
100 105 110
Val Leu Gly Leu Gln Lys Asn Asn Lys Ile Gly Ile Glu Glu Ala Asp
115 120 125
Ser Phe Phe Lys Val Leu Cys Ala Lys Asp Glu Asp Thr Ile Pro Gln
130 135 140
Leu Leu Val Asp Phe Trp Glu Ala Gln Leu Val Ala Cys Leu Pro Asp
145 150 155 160
Val Val Leu Gln Glu Leu Phe Phe Lys Leu Thr Ser Gln Tyr Ile Trp
165 170 175
Arg Leu Ser Lys Arg Gln Pro Pro Asp Thr Thr Pro Leu Arg Thr Ser
180 185 190
Glu Asp Leu Ile Asn Ala Cys Ser His Tyr Gly Leu Ile Tyr Pro Trp
195 200 205
Val His Val Val Ile Ser Ser Asp Ser Leu Ala Asp Lys Asn Tyr Thr
210 215 220
Glu Asp Leu Ser Lys Leu Gln Leu Pro Leu Phe Arg Ser Trp Ser His
225 230 235 240
Phe Gln Lys Thr Leu Leu Pro Ala Ser Val Ser Met Phe Cys Val Val
245 250 255
His Ala

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<210> 335

<211> 2180

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(2180)

<223> n = A,T,C or G

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<400> 335
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<210> 336
<211> 234
<212> PRT
<213> Homo sapiens

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<400> 336
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20 25 30
Arg Arg Lys Leu Leu Met Asn Ser Glu Gln Arg Ile Asn Arg Ile Met
35 40 45
Gly Phe His Arg Pro Gly Ser Gly Ala Glu Glu Glu Ser Gln Thr Lys
50 55 60
Ser Lys Gln Gln Asp Ser Asp Lys Leu Asn Ser Leu Ser Val Pro Ser
65 70 75 80
Val Ser Lys Arg Val Val Leu Gly Asp Ser Val Ser Thr Gly Thr Thr
85 90 95

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Asp Gln Gln Gly Gly Val Ala Glu Val Lys Gly Thr Gln Leu Gly Asp
 100 105 110
 Lys Leu Asp Ser Phe Ile Lys Pro Pro Glu Cys Ser Ser Asp Val Asn
 115 120 125
 Leu Glu Leu Arg Gln Arg Asn Arg Gly Asp Leu Thr Ala Asp Ser Val
 130 135 140
 Gln Arg Gly Ser Arg His Gly Leu Glu Gln Tyr Leu Ser Arg Phe Glu
 145 150 155 160
 Glu Ala Met Lys Leu Arg Lys Gln Leu Ile Ser Glu Lys Pro Ser Gln
 165 170 175
 Glu Asp Gly Asn Thr Thr Glu Glu Phe Asp Ser Phe Arg Ile Phe Arg
 180 185 190
 Leu Val Gly Cys Ala Leu Leu Ala Leu Gly Val Arg Ala Phe Val Cys
 195 200 205
 Lys Tyr Leu Ser Ile Phe Ala Pro Phe Leu Thr Leu Gln Leu Ala Leu
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 His Gly Ile Ile Gln Ile Phe Ser Gln Glu
 225 230

<210> 337

<211> 3695

<212> DNA

<213> Homo sapiens

<400> 337

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 tactctgttt tctggacagt gtccaaacct atggccttcc tcatcatggt tgtgtgttac 840
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<210> 338

<211> 353

<212> PRT

<213> Homo sapiens

<400> 338

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Val Leu Cys  Val Gly Thr Phe Phe Cys Leu Phe Ile Phe Phe Ser Asn
35         40         45
Ser Leu Val  Ile Ala Val Ile Lys Asn Arg Lys Phe His Phe Pro
50         55         60
Phe Tyr Tyr  Leu Leu Ala Asn Leu Ala Ala Asp Phe Phe Ala Gly
65         70         75         80
Ile Ala Tyr  Val Phe Leu Met Phe Asn Thr Gly Pro Val Ser Lys Thr
85         90         95
Leu Thr Val  Asn Arg Trp Phe Leu Arg Gln Gly Leu Leu Asp Ser Ser
100        105        110
Leu Thr Ala  Ser Leu Thr Asn Leu Leu Val Ile Ala Val Glu Arg His
115        120        125
Met Ser Ile  Met Arg Met Arg Val His Ser Asn Leu Thr Lys Lys Arg
130        135        140
Val Thr Leu  Leu Ile Leu Leu Val Trp Ala Ile Ala Ile Phe Met Gly
145        150        155        160
Ala Val Pro  Thr Leu Gly Trp Asn Cys Leu Cys Asn Ile Ser Ala Cys

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	195	200	205		
Ile Tyr Val Tyr	Val Lys Arg Lys Thr Asn Val Leu Ser Pro His Thr				
	210	215	220		
Ser Gly Ser Ile	Ser Arg Arg Arg Thr Pro Met Lys Leu Met Lys Thr				
	225	230	235		240
Val Met Thr Val	Leu Gly Ala Phe Val Val Cys Trp Thr Pro Gly Leu				
	245	250	255		
Val Val Leu Leu	Leu Asp Gly Leu Asn Cys Arg Gln Cys Gly Val Gln				
	260	265	270		
His Val Lys Arg	Trp Phe Leu Leu Ala Leu Leu Asn Ser Val Val				
	275	280	285		
Asn Pro Ile Ile	Tyr Ser Tyr Lys Asp Glu Asp Met Tyr Gly Thr Met				
	290	295	300		
Lys Lys Met Ile	Cys Cys Phe Ser Gln Glu Asn Pro Glu Arg Arg Pro				
	305	310	315		320
Ser Arg Ile Pro	Ser Thr Val Leu Ser Arg Ser Asp Thr Gly Ser Gln				
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 <212> DNA
 <213> Homo sapiens

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<210> 340

<211> 784

<212> PRT

<213> Homo sapiens

<400> 340

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Asp Gln Phe Trp Ala Asp Thr Ala Thr Ser Val Gln Asp Val Phe Ala
35 40 45
Leu Val Pro Ala Ala Glu Ile Arg Ala Val Arg Glu Glu Ser Pro Ser
50 55 60
Asn Leu Ala Thr Leu Cys Tyr Lys Ala Val Glu Lys Leu Val Gln Gly
65 70 75 80
Ala Glu Ser Gly Cys His Ser Glu Lys Glu Lys Gln Ile Val Leu Asn
85 90 95
Cys Ser Arg Leu Leu Thr Arg Val Leu Pro Tyr Ile Phe Glu Asp Pro
100 105 110
Asp Trp Arg Gly Phe Phe Trp Ser Thr Val Pro Gly Ala Gly Arg Gly
115 120 125
Gly Gln Gly Glu Glu Asp Asp Glu His Ala Arg Pro Leu Ala Glu Ser
130 135 140
Leu Leu Leu Ala Ile Ala Asp Leu Leu Phe Cys Pro Asp Thr Gln Ser
145 150 155 160

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350

His Arg Arg Ser Thr Val Asp Ser Ala Glu Asp Val His Ser Leu Asp
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 Ser Cys Glu Tyr Ile Trp Glu Ala Gly Val Gly Phe Ala His Ser Pro
 180 185 190
 Gln Pro Asn Tyr Ile His Asp Met Asn Arg Met Glu Leu Leu Lys Leu
 195 200 205
 Leu Leu Thr Cys Phe Ser Glu Ala Met Tyr Leu Pro Pro Ala Pro Glu
 210 215 220
 Ser Gly Ser Thr Asn Pro Trp Val Gln Phe Phe Cys Ser Thr Glu Asn
 225 230 235 240
 Arg His Ala Leu Pro Leu Phe Thr Ser Leu Leu Asn Thr Val Cys Ala
 245 250 255
 Tyr Asp Pro Val Gly Tyr Gly Ile Pro Tyr Asn His Leu Leu Phe Ser
 260 265 270
 Asp Tyr Arg Glu Pro Leu Val Glu Ala Gln Val Leu Ile Val Thr Leu
 275 280 285
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 290 295 300
 Thr Gly Thr Ala Met Asp Asp Ala Asp Pro Pro Gly Pro Glu Asn Leu
 305 310 315 320
 Phe Val Asn Tyr Leu Ser Arg Ile His Arg Glu Glu Asp Phe Gln Phe
 325 330 335
 Ile Leu Lys Gly Ile Ala Arg Leu Leu Ser Asn Pro Leu Leu Gln Thr
 340 345 350
 Tyr Leu Pro Asn Ser Thr Lys Lys Ile Gln Phe His Gln Glu Leu Leu
 355 360 365
 Val Leu Phe Trp Lys Leu Cys Asp Phe Asn Lys Lys Phe Leu Phe Phe
 370 375 380
 Val Leu Lys Ser Ser Asp Val Leu Asp Ile Leu Val Pro Ile Leu Phe
 385 390 395 400
 Phe Leu Asn Asp Ala Arg Ala Asp Gln Ser Arg Val Gly Leu Met His
 405 410 415
 Ile Gly Val Phe Ile Leu Leu Leu Ser Gly Glu Arg Asn Phe Gly
 420 425 430
 Val Arg Leu Asn Lys Pro Tyr Ser Ile Arg Val Pro Met Asp Ile Pro
 435 440 445
 Val Phe Thr Gly Thr His Ala Asp Leu Leu Ile Val Val Phe His Lys
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 485 490 495
 Val Thr Ala Asn Lys Leu Leu His Leu Leu Glu Ala Phe Ser Thr Thr
 500 505 510
 Trp Phe Leu Phe Ser Ala Ala Gln Asn His His Leu Val Phe Phe Leu
 515 520 525
 Leu Glu Val Phe Asn Asn Ile Ile Gln Tyr Gln Phe Asp Gly Asn Ser
 530 535 540
 Asn Leu Val Tyr Ala Ile Ile Arg Lys Arg Ser Ile Phe His Gln Leu
 545 550 555 560
 Ala Asn Leu Pro Thr Asp Pro Pro Thr Ile His Lys Ala Leu Gln Arg
 565 570 575
 Arg Arg Arg Thr Pro Glu Pro Leu Ser Arg Thr Gly Ser Gln Glu Gly
 580 585 590
 Thr Ser Met Glu Gly Ser Arg Pro Ala Ala Pro Ala Glu Pro Gly Thr
 595 600 605
 Leu Lys Thr Ser Leu Val Ala Thr Pro Gly Ile Asp Lys Leu Thr Glu
 610 615 620

Lys Ser Gln Val Ser Glu Asp Gly Thr Leu Arg Ser Leu Glu Pro Glu
 625 630 635 640
 Pro Gln Gln Ser Leu Glu Asp Gly Ser Pro Ala Lys Gly Glu Pro Ser
 645 650 655
 Gln Ala Trp Arg Glu Gln Arg Arg Pro Ser Thr Ser Ser Ala Ser Gly
 660 665 670
 Gln Trp Ser Pro Thr Pro Glu Trp Val Leu Ser Trp Lys Ser Lys Leu
 675 680 685
 Pro Leu Gln Thr Ile Met Arg Leu Leu Gln Val Leu Val Pro Gln Val
 690 695 700
 Glu Lys Ile Cys Ile Asp Lys Gly Leu Thr Asp Glu Ser Glu Ile Leu
 705 710 715 720
 Arg Phe Leu Gln His Gly Thr Leu Val Gly Leu Leu Pro Val Pro His
 725 730 735
 Pro Ile Leu Ile Arg Lys Tyr Gln Ala Asn Ser Gly Thr Ala Met Trp
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<210> 341

<211> 3307

<212> DNA

<213> Homo sapiens

<400> 341

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<210> 342

<211> 789

<212> PRT

<213> Homo sapiens

<400> 342

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35 40 45
Leu Val Pro Ala Ala Glu Ile Arg Ala Val Arg Glu Glu Ser Pro Ser
50 55 60
Asn Leu Ala Thr Leu Cys Tyr Lys Ala Val Glu Lys Leu Val Gln Gly
65 70 75 80
Ala Glu Ser Gly Cys His Ser Glu Lys Glu Lys Gln Ile Val Leu Asn
85 90 95
Cys Ser Arg Leu Leu Thr Arg Val Leu Pro Tyr Ile Phe Glu Asp Pro
100 105 110
Asp Trp Arg Gly Phe Phe Trp Ser Thr Val Pro Gly Ala Gly Arg Gly
115 120 125
Gly Gln Gly Glu Glu Asp Asp Glu His Ala Arg Pro Leu Ala Glu Ser
130 135 140
Leu Leu Leu Ala Ile Ala Asp Leu Leu Phe Cys Pro Asp Phe Thr Val
145 150 155 160
Gln Ser His Arg Arg Ser Thr Val Asp Ser Ala Glu Asp Val His Ser
165 170 175
Leu Asp Ser Cys Glu Tyr Ile Trp Glu Ala Gly Val Gly Phe Ala His
180 185 190
Ser Pro Gln Pro Asn Tyr Ile His Asp Met Asn Arg Met Glu Leu Leu

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195
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 225
 Glu Asn Arg His Ala Leu Pro Leu Phe Thr Ser Leu Leu Asn Thr Val
 245
 Cys Ala Tyr Asp Pro Val Gly Tyr Gly Ile Pro Tyr Asn His Leu Leu
 260
 Phe Ser Asp Tyr Arg Glu Pro Leu Val Glu Glu Ala Ala Gln Val Leu
 275
 Ile Val Thr Leu Asp His Asp Ser Ala Ser Ser Ala Ser Pro Thr Val
 290
 Asp Gly Thr Thr Thr Gly Thr Ala Met Asp Asp Ala Asp Pro Pro Gly
 305
 Pro Glu Asn Leu Phe Val Asn Tyr Leu Ser Arg Ile His Arg Glu Glu
 325
 Asp Phe Gln Phe Ile Leu Lys Gly Ile Ala Arg Leu Leu Ser Asn Pro
 340
 Leu Leu Gln Thr Tyr Leu Pro Asn Ser Thr Lys Lys Ile Gln Phe His
 355
 Gln Glu Leu Leu Val Leu Phe Trp Lys Leu Cys Asp Phe Asn Lys Lys
 370
 Phe Leu Phe Phe Val Leu Lys Ser Ser Asp Val Leu Asp Ile Leu Val
 385
 Pro Ile Leu Phe Phe Leu Asn Asp Ala Arg Ala Asp Gln Ser Arg Val
 405
 Gly Leu Met His Ile Gly Val Phe Ile Leu Leu Leu Ser Gly Glu
 420
 Arg Asn Phe Gly Val Arg Leu Asn Lys Pro Tyr Ser Ile Arg Val Pro
 435
 Met Asp Ile Pro Val Phe Thr Gly Thr His Ala Asp Leu Leu Ile Val
 450
 Val Phe His Lys Ile Ile Thr Ser Gly His Gln Arg Leu Gln Pro Leu
 465
 Phe Asp Cys Leu Leu Thr Ile Val Val Asn Val Ser Pro Tyr Leu Lys
 485
 Ser Leu Ser Met Val Thr Ala Asn Lys Leu Leu His Leu Leu Glu Ala
 500
 Phe Ser Thr Thr Trp Phe Leu Phe Ser Ala Ala Gln Asn His His Leu
 515
 Val Phe Phe Leu Leu Glu Val Phe Asn Asn Ile Ile Gln Tyr Gln Phe
 530
 Asp Gly Asn Ser Asn Leu Val Tyr Ala Ile Ile Arg Lys Arg Ser Ile
 545
 Phe His Gln Leu Ala Asn Leu Pro Thr Asp Pro Pro Thr Ile His Lys
 565
 Ala Leu Gln Arg Arg Arg Thr Pro Glu Pro Leu Ser Arg Thr Gly
 580
 Ser Gln Glu Gly Thr Ser Met Glu Gly Ser Arg Pro Ala Ala Pro Ala
 595
 Glu Pro Gly Thr Leu Lys Thr Ser Leu Val Ala Thr Pro Gly Ile Asp
 610
 Lys Leu Thr Glu Lys Ser Gln Val Ser Glu Asp Gly Thr Leu Arg Ser
 625
 Leu Glu Pro Glu Pro Gln Gln Ser Leu Glu Asp Gly Ser Pro Ala Lys
 645
 Gly Glu Pro Ser Gln Ala Trp Arg Glu Gln Arg Arg Pro Ser Thr Ser

354

660					665					670					
Ser	Ala	Ser	Gly	Gln	Trp	Ser	Pro	Thr	Pro	Glu	Trp	Val	Leu	Ser	Trp
675					680					685					
Lys	Ser	Lys	Leu	Pro	Leu	Gln	Thr	Ile	Met	Arg	Leu	Leu	Gln	Val	Leu
690					695					700					
Val	Pro	Gln	Val	Glu	Lys	Ile	Cys	Ile	Asp	Lys	Gly	Leu	Thr	Asp	Glu
705					710					715					
Ser	Glu	Ile	Leu	Arg	Phe	Leu	Gln	His	Gly	Thr	Leu	Val	Gly	Leu	Leu
725					730					735					
Pro	Val	Pro	His	Pro	Ile	Leu	Ile	Arg	Lys	Tyr	Gln	Ala	Asn	Ser	Gly
740					745					750					
Thr	Ala	Met	Trp	Phe	Arg	Thr	Tyr	Met	Trp	Gly	Val	Ile	Tyr	Leu	Arg
755					760					765					
Asn	Val	Asp	Pro	Pro	Val	Trp	Tyr	Asp	Thr	Asp	Val	Lys	Leu	Phe	Glu
770					775					780					
Ile	Gln	Arg	Val												
785															

<210> 343

<211> 563

<212> DNA

<213> Homo sapiens

<400> 343

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cttgcgtataa	cgcgcggaga	atgagaaatt	ccaaaaaac	agaaattgac	accttggaaa	180
gacataccaa	aaaaaacgga	tttcagagaaa	cttcgtccgat	ttgcgaattg	gcacaaataa	240
agacactgga	tgcctccaat	gaagcactctg	agaagctcaa	ctataaattt	ccaggaacaacg	300
tgcacactgt	gcatacaaaa	cccacactctg	ctctcgaaa	ggtgtgttcc	ctgaaaaggcg	360
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cttcgcttc	gaattactgc	ctcgtattgca	aaaaaggcga	aaagctttcca	taggcggtcg	480
gcaacttgctt	gtgaaattaa	gcagcttttg	tattcttccc	tttgacttta	ggtataataag	540
ctctcagact	tgtaaaaaaa	aaa				563

<210> 344

<211> 107

<212> PRT

<213> Homo sapiens

<400> 344

Met	Ala	Asn	Glu	Val	Gln	Asp	Leu	Leu	Ser	Pro	Arg	Lys	Gly	Gly	His
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Pro	Pro	Ala	Val	Lys	Ala	Gly	Gly	Met	Arg	Ile	Ser	Lys	Lys	Gln	Glu
			20				25						30		
Ile	Gly	Thr	Leu	Glu	Arg	His	Thr	Lys	Lys	Thr	Gly	Phe	Glu	Lys	Thr
		35					40					45			
Ser	Ala	Ile	Ala	Asn	Val	Ala	Lys	Ile	Gln	Thr	Leu	Asp	Ala	Leu	Asn
	50					55					60				
Asp	Ala	Leu	Glu	Lys	Leu	Asn	Tyr	Lys	Phe	Pro	Ala	Thr	Val	His	Met
	65				70				75					80	
Ala	His	Gln	Lys	Pro	Thr	Pro	Ala	Leu	Glu	Lys	Val	Val	Pro	Leu	Lys
			85						90					95	
Arg	Ile	Tyr	Ile	Ile	Gln	Gln	Pro	Arg	Lys	Cys					
			100					105							

<210> 345
 <211> 3733
 <212> DNA
 <213> Homo sapiens
 <220>
 <221> misc_feature
 <222> (1)...(3733)
 <223> n = A,T,C or G

<400> 345
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 cagacaacct atagcaacct atttatacaa aggggggaaa aaacacctga gcagaatgga 180
 atcattattt ttttcccaag gagaaaaccg gggttaaggg aggggaagcaa ttcaatttgg 240
 agtccctgtg aatgggcttt cagaaggcaa ttaaaagaaat ccactcagag aggaacttggg 300
 gtgaaacttg ggtcctgtgg ttttctgatt gtaagtggaa gcaggtcttg cacacgtctg 360
 tggcaaaagt caggaccagg ttaagtgtact gccagaaaaa ctgccaggtg gaacaagcaa 420
 cccaggtttct gctgcaagct tgaaggagcc tggagcggga gaaagctaac ttgaacatga 480
 ctgtgtgcat ttggcaagtt ctagcaacat gctcctaagg aagcgatata gccacagacc 540
 atgcagactc cagtctctcc tgcgtctcct gatgctggga tgcgtctctga tgaatgggtgg 600
 gatgtgtcac cctcccccac acacccctgca ccagactgtc acagcccaag ccagcaagca 660
 cagccctgaa gccaggtacc gcctggactt tggggnaatcc acgatttggg tactggaagg 720
 tgaggatgag ggtgaagagt acagccctct ggagggcctg ccacccctta tctcatcagg 780
 ggaggtacag ctgctgggtg ccgtggcctt accccagccc agaaggaaac agagccaggg 840
 caggagaggt gggagctacc gcctcatcaa gcagccaaag aggcaggata aggaagcccc 900
 aaagagggac tggggggcgl alagaggacgg ggaggtgtct gaagaagagg aglttaccoc 960
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 ggctctgcoc gaggtcggcg acccaactgt tctgcagcag caccctcagg acagcctgoc 1080
 cacagccagc gtaactctct gtttccatga tgcagcctgg tccactctcc tgcggactgt 1140
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 cctcagccag caaggcaaac tcaagtctgc tctcagcgaa tatgtggcca ggctggagg 1260
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 ggtgttggct ccttgagctg acagccggga gccaacgtac ctgcagcaca ccagagaaa 2160
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 tctttgtttt tctccactga gcaacttaac attgnotttc tctctggcct ggacattctc 2760
 tggcagcacc tccaggtacc ataaattcaa tggatcaatt tatttgcctt caaatggcct 2820

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taacttggat  tgtctgtttg  gccaacatg  aaaattaaag  agtgaatgca  gatgtaatgg  2880
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agccatactc  cagaangaag  gaaangggna  gctacagaaa  nggagggtta  ggattgcaga  3000
gaangatgca  agnagcactt  tggcccaatt  ctccnagctn  caaccagca  gctgaaaagc  3060
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agtaccagca  caatttgagc  attccatta  acaaggtgt  tcacagttga  gaaactctcc  3300
tgccggggcg  ggtggctcat  gctgttaatt  ccagacattt  gggaggcaga  gttggaggga  3360
ttactgtatg  tcagggtgtt  gagaccagcc  tgggtcaaat  tgcaaaaact  tgtctctact  3420
aaaaatacaa  aaattagctg  ggcattgttg  cgcataacct  tratccagc  tacttggagg  3480
gctgaggcaa  gagaatcgct  tgaacccatg  angcagaagg  tgcaatnagc  tgnatcatg  3540
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gaacctttct  gggncctgt  tacaggggtg  cactgctgga  gcanaacaca  cctttttnaa  3660
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atttgggggt  aag  3733

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<210> 346

<211> 639

<212> PRT

<213> Homo sapiens

<400> 346

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 20          25          30
Leu His Pro Pro His His Thr Leu His Gln Thr Val Thr Ala Gln Ala
 35          40          45
Ser Lys His Ser Pro Glu Ala Arg Tyr Arg Leu Asp Phe Gly Glu Ser
 50          55          60
Gln Asp Trp Val Leu Glu Ala Glu Asp Glu Gly Glu Glu Tyr Ser Pro
 65          70          75          80
Leu Glu Gly Leu Pro Pro Phe Ile Ser Leu Arg Glu Asp Gln Leu Leu
 85          90          95
Val Ala Val Ala Leu Pro Gln Ala Arg Arg Asn Gln Ser Gln Gly Arg
100          105          110
Arg Gly Gly Ser Tyr Arg Leu Ile Lys Gln Pro Arg Arg Gln Asp Lys
115          120          125
Glu Ala Pro Lys Arg Asp Trp Gly Ala Asp Glu Asp Gly Glu Val Ser
130          135          140
Glu Glu Glu Glu Leu Thr Pro Phe Ser Leu Asp Pro Arg Gly Leu Gln
145          150          155          160
Glu Ala Leu Ser Ala Arg Ile Pro Leu Gln Arg Ala Leu Pro Glu Val
165          170          175
Arg His Pro Leu Cys Leu Gln Gln His Pro Gln Asp Ser Leu Pro Thr
180          185          190
Ala Ser Val Ile Leu Cys Phe His Asp Glu Ala Trp Ser Thr Leu Leu
195          200          205
Arg Thr Val His Ser Ile Leu Asp Thr Val Pro Arg Ala Phe Leu Lys
210          215          220
Glu Ile Ile Leu Val Asp Asp Leu Ser Gln Gln Gly Gln Leu Lys Ser
225          230          235          240
Ala Leu Ser Glu Tyr Val Ala Arg Leu Glu Gly Val Lys Leu Leu Arg
245          250          255
Ser Asn Lys Arg Leu Gly Ala Ile Arg Ala Arg Met Leu Gly Ala Thr
260          265          270
Arg Ala Thr Gly Asp Val Leu Val Phe Met Asp Ala His Cys Glu Cys

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357

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      275              280              285
His Pro Gly Trp Leu Glu Pro Leu Leu Ser Arg Ile Ala Gly Asp Arg
290              295              300
Ser Arg Val Val Ser Pro Val Ile Asp Val Ile Asp Trp Lys Thr Phe
305              310              315
Gln Tyr Tyr Pro Ser Lys Asp Leu Gln Arg Gly Val Leu Asp Trp Lys
      325              330              335
Leu Asp Phe His Trp Glu Pro Leu Pro Glu His Val Arg Lys Ala Leu
      340              345              350
Gln Ser Pro Ile Ser Pro Ile Arg Ser Pro Val Val Pro Gly Glu Val
      355              360              365
Val Ala Met Asp Arg His Tyr Phe Gln Asn Thr Gly Ala Tyr Asp Ser
370              375              380
Leu Met Ser Leu Arg Gly Gly Glu Asn Leu Glu Leu Ser Phe Lys Ala
385              390              395
Trp Leu Cys Gly Gly Ser Val Glu Ile Leu Pro Cys Ser Arg Val Gly
      405              410              415
His Ile Tyr Gln Asn Gln Asp Ser His Ser Pro Leu Asp Gln Glu Ala
      420              425              430
Thr Leu Arg Asn Arg Val Arg Ile Ala Glu Thr Trp Leu Gly Ser Phe
      435              440              445
Lys Glu Thr Phe Tyr Lys His Ser Pro Glu Ala Phe Ser Leu Ser Lys
450              455              460
Ala Glu Lys Pro Asp Cys Met Glu Arg Leu Gln Leu Gln Arg Arg Leu
465              470              475
Gly Cys Arg Thr Phe His Trp Phe Leu Ala Asn Val Tyr Pro Glu Leu
      485              490              495
Tyr Pro Ser Glu Pro Arg Pro Ser Phe Ser Gly Lys Leu His Asn Thr
      500              505              510
Gly Leu Gly Leu Cys Ala Asp Cys Gln Ala Glu Gly Asp Ile Leu Gly
      515              520              525
Cys Pro Met Val Leu Ala Pro Cys Ser Asp Ser Arg Gln Gln Gln Tyr
530              535              540
Leu Gln His Thr Ser Arg Lys Glu Ile His Phe Gly Ser Pro Gln His
545              550              555
Leu Cys Phe Ala Val Arg Gln Glu Gln Val Ile Leu Gln Asn Cys Thr
      565              570              575
Glu Glu Gly Leu Ala Ile His Gln Gln His Trp Asp Phe Gln Glu Asn
      580              585              590
Gly Met Ile Val His Ile Leu Ser Gly Lys Cys Met Glu Ala Val Val
      595              600              605
Gln Glu Asn Asn Lys Asp Leu Tyr Leu Arg Pro Cys Asp Gly Lys Ala
610              615              620
Arg Gln Gln Trp Arg Phe Asp Gln Ile Asn Ala Val Asp Glu Arg
625              630              635

```

<210> 347

<211> 1891

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(1891)

<223> n = A,T,C or G

<400> 347

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ttcccagacc atggcttccc tggggcagat cctcttctgg agcataatta gcatcatcat 120
tattctggct ggagcaattg cactcatcat tggcttttgg atttcaggga gacactccat 180
cacagtcact actgtcgcot cagctgggaa catctggggag gatggaatcc tgagctgcac 240
ttttgaacct gacatcaaac tttctgatat cgtgatataa tggctgaagg aaggtgtttt 300
aggcttggct catgagttca aagaaggcaa agatgagctg tcgggacagg atgaaatgtt 360
cagagggcgg acagcagtg tttgtgatca agtgatagtt ggcaatgcct ctttgcggct 420
gaaaaacgct gcaactcacag atgctggcac ctacaaatgt tatatcatca cttotaagg 480
caagggaagt gctaaccttg agtataaaac tggagccttc agcatgcggg aagtgaatgt 540
ggaactaaat gccagctcag agaccttgcg gtgtgagctt ccccgatggt tccccagacc 600
cacagttggt tgggcatccc aagttgacca gggagccaac ttctcggaag tctccaatca 660
cagottttag ctgaactctg agaattgtgac catgaaggtt gtgtctgtgc tctacaatgt 720
tacgatcaac aacacatact cctgtatgat tgaatatgac attgccaaag caacaggggg 780
tatcaaatgt acagaatcgg agatcaaaag ggggagtcac ctacagctgc taaactcaaa 840
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tcactgatg ctaaaaataat gtgcctcggc cacaataaag catgcaaatg catgtttaca 960
acagggtact acagaactat ttccaccaca gatattgacct agttttatat ttctgggagg 1020
aaatgaatic atattctagaa gtctggagtg agcaaaacag agcaagaacg aaaaaggaag 1080
caaaagcaga wrkctscarw atkmccctt agcgtgtgtg cscscsagg tacaggacgt 1140
ctcccatta caactaccca atccgaagt tcaactgtgt caggactaag aaacctggt 1200
tttgagtaga aaaggccctg gaaagagggg agccaacaaa tctgtctgct tctcacatt 1260
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atgcctgatg gggattatctt cagcttgttg agcttctaag tttcttctcc ttcattctac 1440
cctgcaagcc aagttctctga agagaaatgc ctgagttcta gctcaggttt tcttactctt 1500
aatttagatc tccagaccct tctgtgccac aattcaaat aaggcaacaa acatatact 1560
tccatgaang cacacacaga ctttgaag caaggacaat gactgttga gattgagcct 1620
tganggaatg aangcntttg aaggnaaaag aantactttn gtttccagcc ccentnccc 1680
acantctc acatgtttaan ccactgcnc tncctggann ccttgngann cccagcgnrg 1740
nactgntatt nactngttg tnnnatagaa aannctgat tttaganngt tntcgnatg 1800
nttcaagna gaatgnattw aaaaatatac attttcbbaa aaaaaaaaaa aaaaaaaaaa 1860
maagctnct cggcgcgcac cagctaaag g 1891

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<210> 348

<211> 282

<212> PRT

<213> Homo sapiens

<400> 348

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Met Ala Ser Leu Gly Gln Ile Leu Phe Trp Ser Ile Ile Ser Ile Ile
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20 25 30
Gly Arg His Ser Ile Thr Val Thr Thr Val Ala Ser Ala Gly Asn Ile
35 40 45
Gly Glu Asp Gly Ile Leu Ser Cys Thr Phe Glu Pro Asp Ile Lys Leu
50 55 60
Ser Asp Ile Val Ile Gln Trp Leu Lys Glu Gly Val Leu Gly Leu Val
65 70 75 80
His Glu Phe Lys Glu Gly Lys Asp Glu Leu Ser Glu Gln Asp Glu Met
85 90 95
Phe Arg Gly Arg Thr Ala Val Phe Ala Asp Gln Val Ile Val Gly Asn
100 105 110
Ala Ser Leu Arg Leu Lys Asn Val Gln Leu Thr Asp Ala Gly Thr Tyr
115 120 125
Lys Cys Tyr Ile Ile Thr Ser Lys Gly Lys Gly Asn Ala Asn Leu Glu
130 135 140
Tyr Lys Thr Gly Ala Phe Ser Met Pro Glu Val Asn Val Asp Tyr Asn

```


359

145					150					155				160
Ala	Ser	Ser	Glu	Thr	Leu	Arg	Cys	Glu	Ala	Pro	Arg	Trp	Phe	Pro
					165				170					175
Pro	Thr	Val	Val	Trp	Ala	Ser	Gln	Val	Asp	Gln	Gly	Ala	Asn	Phe
					180				185				190	
Glu	Val	Ser	Asn	Thr	Ser	Phe	Glu	Leu	Asn	Ser	Glu	Asn	Val	Thr
							200					205		Met
Lys	Val	Val	Ser	Val	Leu	Tyr	Asn	Val	Thr	Ile	Asn	Asn	Thr	Tyr
							215					220		
Cys	Met	Ile	Glu	Asn	Asp	Ile	Ala	Lys	Ala	Thr	Gly	Asp	Ile	Lys
225					230					235				240
Thr	Glu	Ser	Glu	Ile	Lys	Arg	Arg	Ser	His	Leu	Gln	Leu	Leu	Asn
					245				250					255
Lys	Ala	Ser	Leu	Cys	Val	Ser	Ser	Phe	Phe	Ala	Ile	Ser	Trp	Ala
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Leu	Pro	Leu	Ser	Pro	Tyr	Leu	Met	Leu	Lys					
							280							

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<210> 349
<211> 1517
<212> DNA
<213> Homo sapiens
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<220>
<221> misc_feature
<222> (1)...(1517)
<223> n = A,T,C or G
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ctgacatgac	tcaaggagaaa	atggagctgtg	actatggctc	tgacacattc	tatgggggaa	300
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gatttgctgt	taatgggttc	tttttcgcag	caagtgtatc	gcagagattt	atcgaagaat	1380
ctcttgcttc	agagattttt	ttttgtcttc	tggtgactac	atagtttcaa	atctctcttt	1440
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tcaadgacat	tatttttt					151

<210> 350

360

<211> 243
 <212> PRT
 <213> Homo sapiens
 <220>
 <221> VARIANT
 <222> (1)...(243)
 <223> Xaa = Any Amino Acid

<400> 350
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 Gly Gly Thr Leu Arg Arg Ser Ser Ser Ala Pro Leu Ile His Gly Leu
 20 25 30
 Ser Asp Leu Ser Gln Val Phe Gln Pro Tyr Thr Leu Arg Thr Arg Arg
 35 40 45
 Asn Ser Thr Thr Ile Met Ser Arg His Ser Leu Glu Glu Gly Leu Asp
 50 55 60
 Met Val Asn Arg Glu Thr Ala His Glu Arg Glu Met Gln Thr Ala Met
 65 70 75 80
 Gln Ile Ser Gln Ser Trp Asp Glu Ser Leu Ser Ser Asp Ser Asp
 85 90 95
 Phe Asp Lys Pro Glu Lys Leu Tyr Ser Pro Lys Arg Ile Asp Phe Thr
 100 105 110
 Pro Val Ser Pro Ala Pro Ser Pro Thr Arg Gly Phe Gly Lys Met Phe
 115 120 125
 Val Ser Ser Ser Gly Leu Pro Pro Ser Pro Val Pro Ser Pro Arg Arg
 130 135 140
 Phe Ser Ser Arg Arg Ser Gln Ser Pro Val Lys Cys Ile Arg Pro Ser
 145 150 155 160
 Val Leu Gly Pro Leu Lys Arg Lys Gly Glu Met Glu Thr Glu Ser Gln
 165 170 175
 Pro Lys Arg Leu Phe Gln Gly Thr Thr Asn Met Leu Ser Pro Asp Ala
 180 185 190
 Ala Gln Leu Ser Asp Leu Ser Ser Cys Ser Asp Ile Leu Asp Gly Ser
 195 200 205
 Ser Ser Ser Ser Gly Leu Ser Ser Asp Pro Leu Ala Xaa Xaa Gln Arg
 210 215 220
 Tyr Arg Arg Val Ser Ser Ser Met Leu Gln Phe Met Leu Phe Val His
 225 230 235 240
 Leu Asp Gly

<210> 351
 <211> 248
 <212> PRT
 <213> Homo sapiens

<400> 351
 Met Ala Gln Glu Lys Met Glu Leu Asp Leu Glu Pro Asp Thr Ser Tyr
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 Gly Gly Thr Leu Arg Arg Ser Ser Ser Ala Pro Leu Ile His Gly Leu
 20 25 30
 Ser Asp Leu Ser Gln Val Phe Gln Pro Tyr Thr Leu Arg Thr Arg Arg
 35 40 45
 Asn Ser Thr Thr Ile Met Ser Arg His Ser Leu Glu Glu Gly Leu Asp
 50 55 60

Met Val Asn Arg Glu Thr Ala His Glu Arg Glu Met Gln Thr Ala Met
 65 70 75 80
 Gln Ile Ser Gln Ser Trp Asp Glu Ser Leu Ser Leu Ser Asp Ser Asp
 85 90 95
 Phe Asp Lys Pro Glu Lys Leu Tyr Ser Pro Lys Arg Ile Asp Phe Thr
 100 105 110
 Pro Val Ser Pro Ala Pro Ser Pro Thr Arg Gly Phe Gly Lys Met Phe
 115 120 125
 Val Ser Ser Ser Gly Leu Pro Pro Ser Pro Val Pro Ser Pro Arg Arg
 130 135 140
 Phe Ser Ser Arg Arg Ser Gln Ser Pro Val Lys Cys Ile Arg Pro Ser
 145 150 155 160
 Val Leu Gly Pro Leu Lys Arg Lys Gly Glu Met Glu Thr Glu Ser Gln
 165 170 175
 Pro Lys Arg Leu Phe Gln Gly Thr Thr Asn Met Leu Ser Pro Asp Ala
 180 185 190
 Ala Gln Leu Ser Asp Leu Ser Ser Cys Ser Asp Ile Leu Asp Gly Ser
 195 200 205
 Ser Ser Ser Ser Gly Leu Ser Ser Asp Pro Leu Ala Lys Gly Ser Ala
 210 215 220
 Thr Ala Glu Ser Pro Val Ala Cys Ser Asn Ser Cys Ser Ser Phe Ile
 225 230 235 240
 Leu Met Asp Asp Leu Ser Pro Lys
 245

<210> 352

<211> 1529

<212> DNA

<213> Homo sapiens

<220>

<221> misc feature

<222> (1)...(1529)

<223> n = A,T,C or G

<400> 352

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 gccctcttagc ccccgccccc agctgcacgt cccacagcgc tcagtcctgc agtgagagtc 180
 ttgggagtcac atagctaagc accaggagct gagcaactgc cgctgtgcct gcctgcaagt 240
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 tccaaacctta cacacttaga actcgaggga atagtacaac aattatgagc cgtcacagcc 420
 ttgtaagtat agaagaagaa ggcctggata tggtagaacag agaaactgca catgaaagg 480
 aaatgcaaac ggcaatgcag ataaagcaat catgggatga gagcttgagc ctgagtgaac 540
 gtgattttga caagccggag aaattatatt ctcttaagag aattgacttc actccagttt 600
 ctccagcacc ttcaaccacc aggggattcg gaaagatgtt cgtgagcagc agtggaattc 660
 caccagctcc agttccacgt ccaagacgat ttccaagcag gagaagtgcag agtccagtc 720
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 cctcagaccg gctggctaaa ggcagcgcta ccgacagatc tccagttagc tgcctcaatt 960
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 atccataatg aggattaag ttttacagat ttcacacat ctgatgcctat tattactott 1140
 tggacatctc ctctccaaa gttcaattt gtgagctag tgacctact agtactgtgt 1200
 ttgtctgata tcattttgga tttagtgtt aaatctcaaa tgctgtattt tgatgtctta 1260

362

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gaggaatctt ttttcttagt gctcagaaaa acacctattt tgagtctata catttaagaa 1320
aggaactgat gtgtattgcc tttaatgggt ccttttcgcg agcaagtgat atgacagatt 1380
tgatcagaaa ttctcttgct tgagagattt ttttttgctc tctgttgact acatagtttc 1440
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cttgatcag cttcaagacc attattttt 1529

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<210> 353

<211> 252

<212> PRT

<213> Homo sapiens

<400> 353

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Met Ala Gln Glu Lys Met Glu Leu Asp Leu Glu Pro Asp Thr Ser Tyr
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Gly Gly Thr Leu Arg Arg Ser Ser Ser Ala Pro Leu Ile His Gly Leu
20     25     30
Ser Asp Leu Ser Gln Val Phe Gln Pro Tyr Thr Leu Arg Thr Arg Arg
35     40     45
Asn Ser Thr Thr Ile Met Ser Arg His Ser Leu Val Ser Ile Glu Glu
50     55     60
Glu Gly Leu Asp Met Val Asn Arg Glu Thr Ala His Glu Arg Glu Met
65     70     75     80
Gln Thr Ala Met Gln Ile Ser Gln Ser Trp Asp Glu Ser Leu Ser Leu
85     90     95
Ser Asp Ser Asp Phe Asp Lys Pro Glu Lys Leu Tyr Ser Pro Lys Arg
100    105    110
Ile Asp Phe Thr Pro Val Ser Pro Ala Pro Ser Pro Thr Arg Gly Phe
115    120    125
Gly Lys Met Phe Val Ser Ser Ser Gly Leu Pro Pro Ser Pro Val Pro
130    135    140
Ser Pro Arg Arg Phe Ser Ser Arg Arg Ser Gln Ser Pro Val Lys Cys
145    150    155    160
Ile Arg Pro Ser Val Leu Gly Pro Leu Lys Arg Lys Gly Glu Met Glu
165    170    175
Thr Glu Ser Gln Pro Lys Arg Leu Phe Gln Gly Thr Thr Asn Met Leu
180    185    190
Ser Pro Asp Ala Ala Gln Leu Ser Asp Leu Ser Ser Cys Ser Asp Ile
195    200    205
Leu Asp Gly Ser Ser Ser Ser Ser Gly Leu Ser Ser Asp Pro Leu Ala
210    215    220
Lys Gly Ser Ala Thr Ala Glu Ser Pro Val Ala Cys Ser Asn Ser Cys
225    230    235    240
Ser Ser Phe Ile Leu Met Asp Asp Leu Ser Pro Lys
245    250

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<210> 354

<211> 1574

<212> DNA

<213> Homo sapiens

<220>

<221> misc_feature

<222> (1)...(1574)

<223> n = A,T,C or G

<400> 354

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cccccttagc ccccgccccc agctgccagt ccccgagcgc tcagtcctgc agtgagagtc 180
ttgggagctc atagctaagc accaggagct gagcactgcc cgtctgtcct gcttccaagt 240
ctgacatggc tcagagagaaa atggagctgg accttgagcc tgacacatct tatgggggaa 300
ccctgaggag atccagcagc gctcccccata tccatgggct cagtgacctt tcacaggttt 360
tccaaacctta caaccttaga actcggagga atagtacaac aattatgagc cgtcacagcc 420
tgttctgttc atctccacct aatcgtatct ctagtacgag actgcatcag atcaaaaggg 480
aagaggcctt gगतatgggt aacagagaaa ctgcacatga aagggaatgc caaaaggcaa 540
tcgacataag ccaatcatgg gatgagagct tgagcctgag tgacagtgat ttgacaagc 600
oggagaaatl atattctcct aagagaattg acttcaclcc agtttctcca gaccttccac 660
ccaccagggg attcggaaag atgttcgtga gcagcagtg attgccacca agtccagttc 720
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agaccattat ttg 1574

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<210> 355

<211> 267

<212> PRT

<213> Homo sapiens

<400> 355

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Met Ala Gln Glu Lys Met Glu Leu Asp Leu Glu Pro Asp Thr Ser Tyr
1 5 10 15
Gly Gly Thr Leu Arg Arg Ser Ser Ala Pro Leu Ile His Gly Leu
20 25 30
Ser Asp Leu Ser Gln Val Phe Gln Pro Tyr Thr Leu Arg Thr Arg Arg
35 40 45
Asn Ser Thr Thr Ile Met Ser Arg His Ser Leu Leu Ser Ser Ser
50 55 60
Pro Asn Arg Ile Pro Ser Ser Arg Leu His Gln Ile Lys Arg Glu Glu
65 70 75 80
Gly Leu Asp Met Val Asn Arg Glu Thr Ala His Glu Arg Glu Met Gln
85 90 95
Thr Ala Met Gln Ile Ser Gln Ser Trp Asp Glu Ser Leu Ser Leu Ser
100 105 110
Asp Ser Asp Phe Asp Lys Pro Glu Lys Leu Tyr Ser Pro Lys Arg Ile
115 120 125
Asp Phe Thr Pro Val Ser Pro Ala Pro Ser Pro Thr Arg Gly Phe Gly
130 135 140
Lys Met Phe Val Ser Ser Ser Gly Leu Pro Pro Ser Pro Val Pro Ser
145 150 155 160
Pro Arg Arg Phe Ser Ser Arg Arg Ser Gln Ser Pro Val Lys Cys Ile
165 170 175
Arg Pro Ser Val Leu Gly Pro Leu Lys Arg Lys Gly Glu Met Glu Thr
180 185 190
Glu Ser Gln Pro Lys Arg Leu Phe Gln Gly Thr Thr Asn Met Leu Ser

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195	200	205
Pro Asp Ala Ala Gln Leu Ser	Asp Leu Ser Ser Cys	Ser Asp Ile Leu
210	215	220
Asp Gly Ser Ser Ser Ser Ser	Gly Leu Ser Ser Asp	Pro Leu Ala Lys
225	230	235
Gly Ser Ala Thr Ala Glu Ser	Pro Val Ala Cys Ser	Asn Ser Cys Ser
245	250	255
Ser Phe Ile Leu Met Asp Asp	Leu Ser Pro Lys	
260	265	

<210> 356

<211> 4458

<212> DNA

<213> Homo sapiens

<400> 356

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cagcaccacac ggctggcagc ccagctccgc tccgcccgcg cctgcctcgg accctgcgcg 180
tgaggaaata tcagggaac cctctgccac ccgaagtttc tgggtcgtc ccagaggggcg 240
cgccctggag ccgagcgccc ttggggcgccc atctggaggc caggtgcggg ccgcgaaccc 300
gcgagggagcg cgcggcgggc gcggcgccga cggcaggagg agggcgccgg agcccggggc 360
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aaggcgccgc cgcctgcctg gcagctggag tgcactttgc ccccgcccg cctcagctgc 480
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gaccgcccc gggcctgagc gcaggctgcc tccgggaccc cagcgctgtc cggacgtgcc 600
atggcgccgg agctgcgggg caacgtgttg tgaagtga calctgggag glaaacacta 660
cacgtgaaga gtggtgaaag ggaacatga ttaactgaag gcctggaga gggaagacac 720
tggtaacat cacatggaca aatitcatig tttctaaag atggcctgga agtagcttt 780
gccactgctt cctccacaaa cagctcttca taacatgggc tgcataaagt caaagcaaac 840
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<210> 357

<211> 127

<212> PRT

<213> Homo sapiens

<400> 357

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Met Pro Arg Trp Leu Leu Ser Leu Thr Phe Ala Gly Leu Phe Pro
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20 25 30
Gly Pro Asp Gln Pro Ala Gly Ser Pro Ala Pro Leu Arg Pro Pro Leu
35 40 45
Pro Arg Thr Leu Arg Leu Arg Lys Tyr Arg Gly Asn Pro Leu Pro Pro
50 55 60
Glu Val Arg Gly Ser Leu Pro Glu Gly Ala Pro Thr Ser Arg Ala Pro
65 70 75 80
Leu Gly Gly His Leu Glu Ala Arg Cys Gly Pro Arg Thr Arg Glu Glu
85 90 95
Arg Ala Ala Gly Ala Ala Thr Ala Gly Gly Ala Gly Ser Pro
100 105 110
Gly Ala Ala Glu Gly Arg Pro Val Leu His Met Leu Pro Leu Gly
115 120 125

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<210> 358
 <211> 1168
 <212> DNA
 <213> Homo sapiens

<400> 358
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<210> 359
 <211> 4453
 <212> DNA
 <213> Homo sapiens

<400> 359
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<211> 583

<212> DNA

<213> Homo sapiens

<400> 360

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Gly Cys Ala Thr Phe Cys Leu Leu Cys Pro Asn Asp Lys Glu Gly Ser
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<211> 732

<212> PRT

<213> Homo sapiens

<400> 363

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